GenCore version 5.1.3

OM nucleic - nucleic search, using sw model

Run on: November 30, 2002, 10:19:08 ; Search time 90 Seconds
(without alignments)
11835.881 Million cell updates/sec

Title: US-10-054-680-1
Perfect score: 2766
Sequence: 1 atggcgtggttaaggttgca.....gctacatcaaggggttctaa 2766

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 341543 seqs, 192557720 residues

Total number of hits satisfying chosen parameters: 683086

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_NA:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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	2	2766	100.0	3012	12	US-10-054-680-5	Sequence 5, Appli
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	4	1784.8	64.5	126512	10	US-09-804-474A-3	Sequence 3, Appli
	5	1784.6	64.5	1863	12	US-10-054-680-3	Sequence 3, Appli
	6	1227.8	44.4	4087	10	US-09-901-419-1	Sequence 1, Appli
	7	787.2	28.5	1836	10	US-09-864-761-16939	Sequence 16939, A
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	10	186.2	6.7	276	10	US-09-864-761-17437	Sequence 17437, A
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	13	76.6	2.8	1617	9	US-09-938-842A-2591	Sequence 2591, Ap
	14	60	2.2	128	10	US-09-864-761-20736	Sequence 20736, A
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	21	46.2	1.7	3984	9	US-09-954-531-151	Sequence 151, App
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	23	46.2	1.7	4559	12	US-10-044-090-555	Sequence 555, App
c	24	44	1.6	1051	10	US-09-804-682-15	Sequence 15, Appl
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c	37	37.2	1.3	1320	9	US-09-981-876-110	Sequence 110, App
c	38	37.2	1.3	4233	9	US-09-991-496-99	Sequence 99, Appl
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c	40	37.2	1.3	4917	9	US-09-991-496-100	Sequence 100, App
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c	42	37.2	1.3	4929	9	US-09-991-496-98	Sequence 98, Appl
c	43	37.2	1.3	4929	10	US-09-874-923-98	Sequence 98, Appl
c	44	37	1.3	514	10	US-09-998-598-2124	Sequence 2124, Ap
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ALIGNMENTS

RESULT 1
US-10-054-680-1
; Sequence 1, Application US/10054680
; Patent No. US20020132998A1
; GENERAL INFORMATION:
; APPLICANT: Friddle, Carl Johan
; APPLICANT: Hilbun, Erin
; TITLE OF INVENTION: No. US20020132998A1el Human Ion Exchanger Proteins and Polynuc
; TITLE OF INVENTION: Same
; FILE REFERENCE: LEX-0301-USA
; CURRENT APPLICATION NUMBER: US/10/054,680
; CURRENT FILING DATE: 2002-01-22
; PRIOR APPLICATION NUMBER: US 60/263,384
; PRIOR FILING DATE: 2001-01-23
; NUMBER OF SEQ ID NOS: 5
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 2766
; TYPE: DNA
; ORGANISM: homo sapiens
US-10-054-680-1

Query Match 100.0%; Score 2766; DB 12; Length 2766;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2766; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db   2761 TTCTAA 2766
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RESULT 2
US-10-054-680-5
; Sequence 5, Application US/10054680
; Patent No. US20020132998A1
; GENERAL INFORMATION:
; APPLICANT: Friddle, Carl Johan
; APPLICANT: Hilbun, Erin
; TITLE OF INVENTION: No. US20020132998A1el Human Ion Exchanger Proteins and Polynucleo
; TITLE OF INVENTION: Same
; FILE REFERENCE: LEX-0301-USA
; CURRENT APPLICATION NUMBER: US/10/054,680
; CURRENT FILING DATE: 2002-01-22
; PRIOR APPLICATION NUMBER: US 60/263,384
; PRIOR FILING DATE: 2001-01-23
; NUMBER OF SEQ ID NOS: 5
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 5
; LENGTH: 3812
; TYPE: DNA
; ORGANISM: homo sapiens
US-10-054-680-5

Query Match 100.0%; Score 2766; DB 12; Length 3812;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2766; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy    241 TTTGTGGCCCTGATATACATGTTCCTTGGGGTGTCCATCATTGCTGACCGCTTCATGGCA 300
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Db    858 TTTGTGGCCCTGATATACATGTTCCTTGGGGTGTCCATCATTGCTGACCGCTTCATGGCA 917

Qy    301 TCTATTGAAGTCATCACCTCTCAAGAGAGGGAGGTGACAATTAAGAAACCCAATGGAGAA 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    918 TCTATTGAAGTCATCACCTCTCAAGAGAGGGAGGTGACAATTAAGAAACCCAATGGAGAA 977

Qy    361 ACCAGCACAACCACTATTCGGGTCTGGAATGAAACTGTCTCCAACCTGACCCTTATGGCC 420
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    978 ACCAGCACAACCACTATTCGGGTCTGGAATGAAACTGTCTCCAACCTGACCCTTATGGCC 1037

Qy    421 CTGGGTTCCTCTGCTCCTGAGATACTCCTCTCTTTAATTGAGGTGTGTGGTCATGGGTTC 480
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1038 CTGGGTTCCTCTGCTCCTGAGATACTCCTCTCTTTAATTGAGGTGTGTGGTCATGGGTTC 1097

Qy    481 ATTGCTGGTGATCTGGGACCTTCTACCATTGTAGGGAGTGCAGCCTTCAACATGTTCATC 540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1098 ATTGCTGGTGATCTGGGACCTTCTACCATTGTAGGGAGTGCAGCCTTCAACATGTTCATC 1157

Qy    541 ATCATTGGCATCTGTGTCTACGTGATCCCAGACGGAGAGACTCGCAAGATCAAGCATCTA 600
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1158 ATCATTGGCATCTGTGTCTACGTGATCCCAGACGGAGAGACTCGCAAGATCAAGCATCTA 1217

Qy    601 CGAGTCTTCTTCATCACCGCTGCTTGGAGTATCTTTGCCTACATCTGGCTCTATATGATT 660
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1218 CGAGTCTTCTTCATCACCGCTGCTTGGAGTATCTTTGCCTACATCTGGCTCTATATGATT 1277

Qy    661 CTGGCAGTCTTCTCCCCTGGTGTGGTCCAGGTTTGGGAAGGCCTCCTCACTCTCTTCTTC 720
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1278 CTGGCAGTCTTCTCCCCTGGTGTGGTCCAGGTTTGGGAAGGCCTCCTCACTCTCTTCTTC 1337

Qy    721 TTTCCAGTGTGTGTCCTTCTGGCCTGGGTGGCAGATAAACGACTGCTCTTCTACAAATAC 780
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1338 TTTCCAGTGTGTGTCCTTCTGGCCTGGGTGGCAGATAAACGACTGCTCTTCTACAAATAC 1397

Qy    781 ATGCACAAAAAGTACCGCACAGACAAACACCGAGGAATTATCATAGAGACAGAGGGTGAC 840
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1398 ATGCACAAAAAGTACCGCACAGACAAACACCGAGGAATTATCATAGAGACAGAGGGTGAC 1457

Qy    841 CACCCTAAGGGCATTGAGATGGATGGGAAAATGATGAATTCCCATTTTCTAGATGGGAAC 900
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1458 CACCCTAAGGGCATTGAGATGGATGGGAAAATGATGAATTCCCATTTTCTAGATGGGAAC 1517

Qy    901 CTGGTGCCCCTGGAAGGGAAGGAAGTGGATGAGTCCCGCAGAGAGATGATCCGGATTCTC 960
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1518 CTGGTGCCCCTGGAAGGGAAGGAAGTGGATGAGTCCCGCAGAGAGATGATCCGGATTCTC 1577

Qy    961 AAGGATCTGAAGCAAAAACACCCAGAGAAGGACTTAGATCAGCTGGTGGAGATGGCCAAT 1020
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1578 AAGGATCTGAAGCAAAAACACCCAGAGAAGGACTTAGATCAGCTGGTGGAGATGGCCAAT 1637

Qy   1021 TACTATGCTCTTTCCCACCAACAGAAGAGCCGCGCCTTCTACCGTATCCAAGCCACTCGT 1080
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1638 TACTATGCTCTTTCCCACCAACAGAAGAGCCGCGCCTTCTACCGTATCCAAGCCACTCGT 1697

Qy   1081 ATGATGACTGGTGCAGGCAATATCCTGAAGAAACATGCAGCAGAACAAGCCAAGAAGGCC 1140
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1698 ATGATGACTGGTGCAGGCAATATCCTGAAGAAACATGCAGCAGAACAAGCCAAGAAGGCC 1757

Qy   1141 TCCAGCATGAGCGAGGTGCACACCGATGAGCCTGAGGACTTTATTTCCAAGGTCTTCTTT 1200
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1758 TCCAGCATGAGCGAGGTGCACACCGATGAGCCTGAGGACTTTATTTCCAAGGTCTTCTTT 1817

Qy   1201 GACCCATGTTCTTACCAGTGCCTGGAGAACTGTGGGGCTGTACTCCTGACAGTGGTGAGG 1260
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Qy   1261 AAAGGGGGAGACATGTCAAAGACCATGTATGTGGACTACAAAACAGAGGATGGTTCTGCC 1320
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Db   1878 AAAGGGGGAGACATGTCAAAGACCATGTATGTGGACTACAAAACAGAGGATGGTTCTGCC 1937

Qy   1321 AATGCAGGGGCTGACTATGAGTTCACAGAGGGCACGGTGGTTCTGAAGCCAGGAGAGACC 1380
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1938 AATGCAGGGGCTGACTATGAGTTCACAGAGGGCACGGTGGTTCTGAAGCCAGGAGAGACC 1997

Qy   1381 CAGAAGGAGTTCTCCGTGGGCATAATTGATGACGACATTTTTGAGGAGGATGAACACTTC 1440
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Db   1998 CAGAAGGAGTTCTCCGTGGGCATAATTGATGACGACATTTTTGAGGAGGATGAACACTTC 2057

Qy   1441 TTTGTAAGGTTGAGCAATGTCCGCATAGAGGAGGAGCAGCCAGAGGAGGGGATGCCTCCA 1500
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2058 TTTGTAAGGTTGAGCAATGTCCGCATAGAGGAGGAGCAGCCAGAGGAGGGGATGCCTCCA 2117

Qy   1501 GCAATATTCAACAGTCTTCCCTTGCCTCGGGCTGTCCTAGCCTCCCCTTGTGTGGCCACA 1560
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2118 GCAATATTCAACAGTCTTCCCTTGCCTCGGGCTGTCCTAGCCTCCCCTTGTGTGGCCACA 2177

Qy   1561 GTTACCATCTTGGATGATGACCATGCAGGCATCTTCACTTTTGAATGTGATACTATTCAT 1620
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Db   2178 GTTACCATCTTGGATGATGACCATGCAGGCATCTTCACTTTTGAATGTGATACTATTCAT 2237

Qy   1621 GTCAGTGAGAGTATTGGTGTTATGGAGGTCAAGGTTCTGCGGACATCAGGTGCCCGGGGT 1680
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2238 GTCAGTGAGAGTATTGGTGTTATGGAGGTCAAGGTTCTGCGGACATCAGGTGCCCGGGGT 2297

Qy   1681 ACAGTCATCGTCCCCTTTAGGACAGTAGAAGGGACAGCCAAGGGTGGCGGTGAGGACTTT 1740
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2298 ACAGTCATCGTCCCCTTTAGGACAGTAGAAGGGACAGCCAAGGGTGGCGGTGAGGACTTT 2357

Qy   1741 GAAGACACATATGGGGAGTTGGAATTCAAGAATGATGAAACTGTGAAAACCATAAGGGTT 1800
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2358 GAAGACACATATGGGGAGTTGGAATTCAAGAATGATGAAACTGTGAAAACCATAAGGGTT 2417

Qy   1801 AAAATAGTAGATGAGGAGGAATACGAAAGGCAAGAGAATTTCTTCATTGCCCTTGGTGAA 1860
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy   1861 CCGAAATGGATGGAACGTGGAATATCAGATGTGACAGACAGGAAGCTGACTATGGAAGAA 1920
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2478 CCGAAATGGATGGAACGTGGAATATCAGATGTGACAGACAGGAAGCTGACTATGGAAGAA 2537

Qy   1921 GAGGAGGCCAAGAGGATAGCAGAGATGGGAAAGCCAGTATTGGGTGAACACCCCAAACTA 1980
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2538 GAGGAGGCCAAGAGGATAGCAGAGATGGGAAAGCCAGTATTGGGTGAACACCCCAAACTA 2597

Qy   1981 GAAGTCATCATTGAAGAGTCCTATGAGTTCAAGACTACGGTGGACAAACTGATCAAGAAG 2040
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2598 GAAGTCATCATTGAAGAGTCCTATGAGTTCAAGACTACGGTGGACAAACTGATCAAGAAG 2657

Qy   2041 ACAAACCTGGCCTTGGTTGTGGGGACCCATTCCTGGAGGGACCAGTTCATGGAGGCCATC 2100
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2658 ACAAACCTGGCCTTGGTTGTGGGGACCCATTCCTGGAGGGACCAGTTCATGGAGGCCATC 2717

Qy   2101 ACCGTCAGTGCAGCAGGGGATGAGGATGAGGATGAATCCGGGGAGGAGAGGCTGCCCTCC 2160
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Db   2718 ACCGTCAGTGCAGCAGGGGATGAGGATGAGGATGAATCCGGGGAGGAGAGGCTGCCCTCC 2777

Qy   2161 TGCTTTGACTACGTCATGCACTTCCTGACTGTCTTCTGGAAGGTGCTGTTTGCCTGTGTG 2220
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Db   2778 TGCTTTGACTACGTCATGCACTTCCTGACTGTCTTCTGGAAGGTGCTGTTTGCCTGTGTG 2837

Qy   2221 CCCCCCACAGAGTACTGCCACGGCTGGGCCTGCTTCGCCGTCTCCATCCTCATCATTGGC 2280
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2838 CCCCCCACAGAGTACTGCCACGGCTGGGCCTGCTTCGCCGTCTCCATCCTCATCATTGGC 2897

Qy   2281 ATGCTCACCGCCATCATTGGGGACCTGGCCTCGCACTTCGGCTGCACCATTGGTCTCAAA 2340
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2898 ATGCTCACCGCCATCATTGGGGACCTGGCCTCGCACTTCGGCTGCACCATTGGTCTCAAA 2957

Qy   2341 GATTCAGTCACAGCTGTTGTTTTCGTGGCATTTGGCACCTCTGTCCCAGATACGTTTGCC 2400
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2958 GATTCAGTCACAGCTGTTGTTTTCGTGGCATTTGGCACCTCTGTCCCAGATACGTTTGCC 3017

Qy   2401 AGCAAAGCTGCTGCCCTCCAGGATGTATATGCAGACGCCTCCATTGGCAACGTGACGGGC 2460
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3018 AGCAAAGCTGCTGCCCTCCAGGATGTATATGCAGACGCCTCCATTGGCAACGTGACGGGC 3077

Qy   2461 AGCAACGCCGTCAATGTCTTCCTGGGCATCGGCCTGGCCTGGTCCGTGGCCGCCATCTAC 2520
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Db   3078 AGCAACGCCGTCAATGTCTTCCTGGGCATCGGCCTGGCCTGGTCCGTGGCCGCCATCTAC 3137

Qy   2521 TGGGCTCTGCAGGGACAGGAGTTCCACGTGTCGGCCGGCACACTGGCCTTCTCCGTCACC 2580
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3138 TGGGCTCTGCAGGGACAGGAGTTCCACGTGTCGGCCGGCACACTGGCCTTCTCCGTCACC 3197

Qy   2581 CTCTTCACCATCTTTGCATTTGTCTGCATCAGCGTGCTCTTGTACCGAAGGCGGCCGCAC 2640
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3198 CTCTTCACCATCTTTGCATTTGTCTGCATCAGCGTGCTCTTGTACCGAAGGCGGCCGCAC 3257

Qy   2641 CTGGGAGGGGAGCTTGGTGGCCCCCGTGGCTGCAAGCTCGCCACAACATGGCTCTTTGTG 2700
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Db   3258 CTGGGAGGGGAGCTTGGTGGCCCCCGTGGCTGCAAGCTCGCCACAACATGGCTCTTTGTG 3317

Qy   2701 AGCCTGTGGCTCCTCTACATACTCTTTGCCACACTAGAGGCCTATTGCTACATCAAGGGG 2760
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Db   3318 AGCCTGTGGCTCCTCTACATACTCTTTGCCACACTAGAGGCCTATTGCTACATCAAGGGG 3377

Qy   2761 TTCTAA 2766
          ||||||
Db   3378 TTCTAA 3383


RESULT 3
US-09-804-474A-1
; Sequence 1, Application US/09804474A
; Patent No. US20020119518A1
; GENERAL INFORMATION:
;  APPLICANT: KODET, Stefan et al
;  TITLE OF INVENTION: ISOLATED HUMAN TRANSPORTER PROTEINS,
;  TITLE OF INVENTION:  NUCLEIC ACID MOLECULES ENCODING HUMAN TRANSPORTER PROTEINS,
;  TITLE OF INVENTION:  AND USES THEREOF
;  FILE REFERENCE: CL000891
;  CURRENT APPLICATION NUMBER: US/09/804,474A
;  CURRENT FILING DATE:  2001-03-13
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
;   LENGTH: 2782
;   TYPE: DNA
;   ORGANISM: Human
US-09-804-474A-1

  Query Match             99.8%;  Score 2761.2;  DB 10;  Length 2782;
  Best Local Similarity   99.9%;  Pred. No. 0;
  Matches 2763;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       1 ATGGCGTGGTTAAGGTTGCAGCCTCTCACCTCTGCCTTCCTCCATTTTGGGCTGGTTACC 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      10 ATGGCGTGGTTAAGGTTGCAGCCTCTCACCTCTGCCTTCCTCCATTTTGGGCTGGTTACC 69

Qy      61 TTTGTGCTCTTCCTGAATGGTCTTCGAGCAGAGGCTGGTGGCTCAGGGGACGTGCCAAGC 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      70 TTTGTGCTCTTCCTGAATGGTCTTCGAGCAGAGGCTGGTGGCTCAGGGGACGTGCCAAGC 129

Qy     121 ACAGGGCAGAACAATGAGTCCTGTTCAGGGTCATCGGACTGCAAGGAGGGTGTCATCCTG 180
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Db     130 ACAGGGCAGAACAATGAGTCCTGTTCAGGGTCATCGGACTGCAAGGAGGGTGTCATCCTG 189

Qy     181 CCAATCTGGTACCCGGAGAACCCTTCCCTTGGGGACAAGATTGCCAGGGTCATTGTCTAT 240
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     190 CCAATCTGGTACCCGGAGAACCCTTCCCTTGGGGACAAGATTGCCAGGGTCATTGTCTAT 249

Qy     241 TTTGTGGCCCTGATATACATGTTCCTTGGGGTGTCCATCATTGCTGACCGCTTCATGGCA 300
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Qy     301 TCTATTGAAGTCATCACCTCTCAAGAGAGGGAGGTGACAATTAAGAAACCCAATGGAGAA 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     310 TCTATTGAAGTCATCACCTCTCAAGAGAGGGAGGTGACAATTAAGAAACCCAATGGAGAA 369

Qy     361 ACCAGCACAACCACTATTCGGGTCTGGAATGAAACTGTCTCCAACCTGACCCTTATGGCC 420
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db    370 ACCAGCACAACCACTATTCGGGTCTGGAATGAAACTGTCTCCAACCTGACCCTTATGGCC 429

Qy    421 CTGGGTTCCTCTGCTCCTGAGATACTCCTCTCTTTAATTGAGGTGTGTGGTCATGGGTTC 480
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy    481 ATTGCTGGTGATCTGGGACCTTCTACCATTGTAGGGAGTGCAGCCTTCAACATGTTCATC 540
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Qy    541 ATCATTGGCATCTGTGTCTACGTGATCCCAGACGGAGAGACTCGCAAGATCAAGCATCTA 600
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Db    550 ATCATTGGCATCTGTGTCTACGTGATCCCAGACGGAGAGACTCGCAAGATCAAGCATCTA 609

Qy    601 CGAGTCTTCTTCATCACCGCTGCTTGGAGTATCTTTGCCTACATCTGGCTCTATATGATT 660
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    610 CGAGTCTTCTTCATCACCGCTGCTTGGAGTATCTTTGCCTACATCTGGCTCTATATGATT 669

Qy    661 CTGGCAGTCTTCTCCCCTGGTGTGGTCCAGGTTTGGGAAGGCCTCCTCACTCTCTTCTTC 720
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    670 CTGGCAGTCTTCTCCCCTGGTGTGGTCCAGGTTTGGGAAGGCCTCCTCACTCTCTTCTTC 729

Qy    721 TTTCCAGTGTGTGTCCTTCTGGCCTGGGTGGCAGATAAACGACTGCTCTTCTACAAATAC 780
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    730 TTTCCAGTGTGTGTCCTTCTGGCCTGGGTGGCAGATAAACGACTGCTCTTCTACAAATAC 789

Qy    781 ATGCACAAAAAGTACCGCACAGACAAACACCGAGGAATTATCATAGAGACAGAGGGTGAC 840
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    790 ATGCACAAAAAGTACCGCACAGACAAACACCGAGGAATTATCATAGAGACAGAGGGTGAC 849

Qy    841 CACCCTAAGGGCATTGAGATGGATGGGAAAATGATGAATTCCCATTTTCTAGATGGGAAC 900
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Db    850 CACCCTAAGGGCATTGAGATGGATGGGAAAATGATGAATTCCCATTTTCTAGATGGGAAC 909

Qy    901 CTGGTGCCCCTGGAAGGGAAGGAAGTGGATGAGTCCCGCAGAGAGATGATCCGGATTCTC 960
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||| |||
Db    910 CTGGTGCCCCTGGAAGGGAAGGAAGTGGATGAGTCCCGCAGAGAGATGATCCGGATCCTC 969

Qy    961 AAGGATCTGAAGCAAAAACACCCAGAGAAGGACTTAGATCAGCTGGTGGAGATGGCCAAT 1020
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    970 AAGGATCTGAAGCAAAAACACCCAGAGAAGGACTTAGATCAGCTGGTGGAGATGGCCAAT 1029

Qy   1021 TACTATGCTCTTTCCCACCAACAGAAGAGCCGCGCCTTCTACCGTATCCAAGCCACTCGT 1080
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1030 TACTATGCTCTTTCCCACCAACAGAAGAGCCGCGCCTTCTACCGTATCCAAGCCACTCGT 1089

Qy   1081 ATGATGACTGGTGCAGGCAATATCCTGAAGAAACATGCAGCAGAACAAGCCAAGAAGGCC 1140
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Db   1090 ATGATGACTGGTGCAGGCAATATCCTGAAGAAACATGCAGCAGAACAAGCCAAGAAGGCC 1149

Qy   1141 TCCAGCATGAGCGAGGTGCACACCGATGAGCCTGAGGACTTTATTTCCAAGGTCTTCTTT 1200
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Db   1150 TCCAGCATGAGCGAGGTGCACACCGATGAGCCTGAGGACTTTATTTCCAAGGTCTTCTTT 1209

Qy   1201 GACCCATGTTCTTACCAGTGCCTGGAGAACTGTGGGGCTGTACTCCTGACAGTGGTGAGG 1260
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1210 GACCCATGTTCTTACCAGTGCCTGGAGAACTGTGGGGCTGTACTCCTGACAGTGGTGAGG 1269

Qy   1261 AAAGGGGGAGACATGTCAAAGACCATGTATGTGGACTACAAAACAGAGGATGGTTCTGCC 1320
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1270 AAAGGGGGAGACATGTCAAAGACCATGTATGTGGACTACAAAACAGAGGATGGTTCTGCC 1329

Qy   1321 AATGCAGGGGCTGACTATGAGTTCACAGAGGGCACGGTGGTTCTGAAGCCAGGAGAGACC 1380
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1330 AATGCAGGGGCTGACTATGAGTTCACAGAGGGCACGGTGGTTCTGAAGCCAGGAGAGACC 1389

Qy   1381 CAGAAGGAGTTCTCCGTGGGCATAATTGATGACGACATTTTTGAGGAGGATGAACACTTC 1440
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1390 CAGAAGGAGTTCTCCGTGGGCATAATTGATGACGACATTTTTGAGGAGGATGAACACTTC 1449

Qy   1441 TTTGTAAGGTTGAGCAATGTCCGCATAGAGGAGGAGCAGCCAGAGGAGGGGATGCCTCCA 1500
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Db   1450 TTTGTAAGGTTGAGCAATGTCCGCATAGAGGAGGAGCAGCCAGAGGAGGGGATGCCTCCA 1509

Qy   1501 GCAATATTCAACAGTCTTCCCTTGCCTCGGGCTGTCCTAGCCTCCCCTTGTGTGGCCACA 1560
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1510 GCAATATTCAACAGTCTTCCCTTGCCTCGGGCTGTCCTAGCCTCCCCTTGTGTGGCCACA 1569

Qy   1561 GTTACCATCTTGGATGATGACCATGCAGGCATCTTCACTTTTGAATGTGATACTATTCAT 1620
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1570 GTTACCATCTTGGATGATGACCATGCAGGCATCTTCACTTTTGAATGTGATACTATTCAT 1629

Qy   1621 GTCAGTGAGAGTATTGGTGTTATGGAGGTCAAGGTTCTGCGGACATCAGGTGCCCGGGGT 1680
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Db   1630 GTCAGTGAGAGTATTGGTGTTATGGAGGTCAAGGTTCTGCGGACATCAGGTGCCCGGGGT 1689

Qy   1681 ACAGTCATCGTCCCCTTTAGGACAGTAGAAGGGACAGCCAAGGGTGGCGGTGAGGACTTT 1740
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Db   1690 ACAGTCATCGTCCCCTTTAGGACAGTAGAAGGGACAGCCAAGGGTGGCGGTGAGGACTTT 1749

Qy   1741 GAAGACACATATGGGGAGTTGGAATTCAAGAATGATGAAACTGTGAAAACCATAAGGGTT 1800
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Db   1750 GAAGACACATATGGGGAGTTGGAATTCAAGAATGATGAAACTGTGAAAACCATAAGGGTT 1809

Qy   1801 AAAATAGTAGATGAGGAGGAATACGAAAGGCAAGAGAATTTCTTCATTGCCCTTGGTGAA 1860
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Db   1810 AAAATAGTAGATGAGGAGGAATACGAAAGGCAAGAGAATTTCTTCATTGCCCTTGGTGAA 1869

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Db   1870 CCGAAATGGATGGAACGTGGAATATCAGATGTGACAGACAGGAAGCTGACTATGGAAGAA 1929

Qy   1921 GAGGAGGCCAAGAGGATAGCAGAGATGGGAAAGCCAGTATTGGGTGAACACCCCAAACTA 1980
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1930 GAGGAGGCCAAGAGGATAGCAGAGATGGGAAAGCCAGTATTGGGTGAACACCCCAAACTG 1989

Qy   1981 GAAGTCATCATTGAAGAGTCCTATGAGTTCAAGACTACGGTGGACAAACTGATCAAGAAG 2040
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1990 GAAGTCATCATTGAAGAGTCCTATGAGTTCAAGACTACGGTGGACAAACTGATCAAGAAG 2049

Qy   2041 ACAAACCTGGCCTTGGTTGTGGGGACCCATTCCTGGAGGGACCAGTTCATGGAGGCCATC 2100
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2050 ACAAACCTGGCCTTGGTTGTGGGGACCCATTCCTGGAGGGACCAGTTCATGGAGGCCATC 2109

Qy   2101 ACCGTCAGTGCAGCAGGGGATGAGGATGAGGATGAATCCGGGGAGGAGAGGCTGCCCTCC 2160
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2110 ACCGTCAGTGCAGCAGGGGATGAGGATGAGGATGAATCCGGGGAGGAGAGGCTGCCCTCC 2169

Qy   2161 TGCTTTGACTACGTCATGCACTTCCTGACTGTCTTCTGGAAGGTGCTGTTTGCCTGTGTG 2220
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2170 TGCTTTGACTACGTCATGCACTTCCTGACTGTCTTCTGGAAGGTGCTGTTTGCCTGTGTG 2229

Qy   2221 CCCCCCACAGAGTACTGCCACGGCTGGGCCTGCTTCGCCGTCTCCATCCTCATCATTGGC 2280
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2230 CCCCCCACAGAGTACTGCCACGGCTGGGCCTGCTTCGCCGTCTCCATCCTCATCATTGGC 2289

Qy   2281 ATGCTCACCGCCATCATTGGGGACCTGGCCTCGCACTTCGGCTGCACCATTGGTCTCAAA 2340
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2290 ATGCTCACCGCCATCATTGGGGACCTGGCCTCGCACTTCGGCTGCACCATTGGTCTCAAA 2349

Qy   2341 GATTCAGTCACAGCTGTTGTTTTCGTGGCATTTGGCACCTCTGTCCCAGATACGTTTGCC 2400
          ||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2350 GATTCGGTCACAGCTGTTGTTTTCGTGGCATTTGGCACCTCTGTCCCAGATACGTTTGCC 2409

Qy   2401 AGCAAAGCTGCTGCCCTCCAGGATGTATATGCAGACGCCTCCATTGGCAACGTGACGGGC 2460
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2410 AGCAAAGCTGCTGCCCTCCAGGATGTATATGCAGACGCCTCCATTGGCAACGTGACGGGC 2469

Qy   2461 AGCAACGCCGTCAATGTCTTCCTGGGCATCGGCCTGGCCTGGTCCGTGGCCGCCATCTAC 2520
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2470 AGCAACGCCGTCAATGTCTTCCTGGGCATCGGCCTGGCCTGGTCCGTGGCCGCCATCTAC 2529

Qy   2521 TGGGCTCTGCAGGGACAGGAGTTCCACGTGTCGGCCGGCACACTGGCCTTCTCCGTCACC 2580
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2530 TGGGCTCTGCAGGGACAGGAGTTCCACGTGTCGGCCGGCACACTGGCCTTCTCCGTCACC 2589
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Qy   2581 CTCTTCACCATCTTTGCATTTGTCTGCATCAGCGTGCTCTTGTACCGAAGGCGGCCGCAC 2640
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2590 CTCTTCACCATCTTTGCATTTGTCTGCATCAGCGTGCTCTTGTACCGAAGGCGGCCGCAC 2649

Qy   2641 CTGGGAGGGGAGCTTGGTGGCCCCCGTGGCTGCAAGCTCGCCACAACATGGCTCTTTGTG 2700
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2650 CTGGGAGGGGAGCTTGGTGGCCCCCGTGGCTGCAAGCTCGCCACAACATGGCTCTTTGTG 2709

Qy   2701 AGCCTGTGGCTCCTCTACATACTCTTTGCCACACTAGAGGCCTATTGCTACATCAAGGGG 2760
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2710 AGCCTGTGGCTCCTCTACATACTCTTTGCCACACTAGAGGCCTATTGCTACATCAAGGGG 2769

Qy   2761 TTCTAA 2766
          ||||||
Db   2770 TTCTAA 2775


RESULT 4
US-09-804-474A-3
; Sequence 3, Application US/09804474A
; Patent No. US20020119518A1
; GENERAL INFORMATION:
;   APPLICANT: KODET, Stefan et al
;   TITLE OF INVENTION: ISOLATED HUMAN TRANSPORTER PROTEINS,
;   TITLE OF INVENTION:  NUCLEIC ACID MOLECULES ENCODING HUMAN TRANSPORTER PROTEINS,
;   TITLE OF INVENTION:  AND USES THEREOF
;   FILE REFERENCE: CL000891
;   CURRENT APPLICATION NUMBER: US/09/804,474A
;   CURRENT FILING DATE:  2001-03-13
;   NUMBER OF SEQ ID NOS: 4
;   SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
;   LENGTH: 126512
;   TYPE: DNA
;   ORGANISM: Human
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (1)...(126512)
;   OTHER INFORMATION: n = A,T,C or G
US-09-804-474A-3

  Query Match             64.5%;  Score 1784.8;  DB 10;  Length 126512;
  Best Local Similarity   99.9%;  Pred. No. 0;
  Matches 1786;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy      1 ATGGCGTGGTTAAGGTTGCAGCCTCTCACCTCTGCCTTCCTCCATTTTGGGCTGGTTACC 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2010 ATGGCGTGGTTAAGGTTGCAGCCTCTCACCTCTGCCTTCCTCCATTTTGGGCTGGTTACC 2069

Qy     61 TTTGTGCTCTTCCTGAATGGTCTTCGAGCAGAGGCTGGTGGCTCAGGGGACGTGCCAAGC 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2070 TTTGTGCTCTTCCTGAATGGTCTTCGAGCAGAGGCTGGTGGCTCAGGGGACGTGCCAAGC 2129

Qy    121 ACAGGGCAGAACAATGAGTCCTGTTCAGGGTCATCGGACTGCAAGGAGGGTGTCATCCTG 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2130 ACAGGGCAGAACAATGAGTCCTGTTCAGGGTCATCGGACTGCAAGGAGGGTGTCATCCTG 2189

Qy    181 CCAATCTGGTACCCGGAGAACCCTTCCCTTGGGGACAAGATTGCCAGGGTCATTGTCTAT 240
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2190 CCAATCTGGTACCCGGAGAACCCTTCCCTTGGGGACAAGATTGCCAGGGTCATTGTCTAT 2249

Qy    241 TTTGTGGCCCTGATATACATGTTCCTTGGGGTGTCCATCATTGCTGACCGCTTCATGGCA 300
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2250 TTTGTGGCCCTGATATACATGTTCCTTGGGGTGTCCATCATTGCTGACCGCTTCATGGCA 2309

Qy    301 TCTATTGAAGTCATCACCTCTCAAGAGAGGGAGGTGACAATTAAGAAACCCAATGGAGAA 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2310 TCTATTGAAGTCATCACCTCTCAAGAGAGGGAGGTGACAATTAAGAAACCCAATGGAGAA 2369

Qy    361 ACCAGCACAACCACTATTCGGGTCTGGAATGAAACTGTCTCCAACCTGACCCTTATGGCC 420
          |||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2370 ACCAGCACAACAACTATTCGGGTCTGGAATGAAACTGTCTCCAACCTGACCCTTATGGCC 2429

Qy    421 CTGGGTTCCTCTGCTCCTGAGATACTCCTCTCTTTAATTGAGGTGTGTGGTCATGGGTTC 480
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2430 CTGGGTTCCTCTGCTCCTGAGATACTCCTCTCTTTAATTGAGGTGTGTGGTCATGGGTTC 2489

Qy    481 ATTGCTGGTGATCTGGGACCTTCTACCATTGTAGGGAGTGCAGCCTTCAACATGTTCATC 540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2490 ATTGCTGGTGATCTGGGACCTTCTACCATTGTAGGGAGTGCAGCCTTCAACATGTTCATC 2549

Qy    541 ATCATTGGCATCTGTGTCTACGTGATCCCAGACGGAGAGACTCGCAAGATCAAGCATCTA 600
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2550 ATCATTGGCATCTGTGTCTACGTGATCCCAGACGGAGAGACTCGCAAGATCAAGCATCTA 2609

Qy    601 CGAGTCTTCTTCATCACCGCTGCTTGGAGTATCTTTGCCTACATCTGGCTCTATATGATT 660
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2610 CGAGTCTTCTTCATCACCGCTGCTTGGAGTATCTTTGCCTACATCTGGCTCTATATGATT 2669

Qy    661 CTGGCAGTCTTCTCCCCTGGTGTGGTCCAGGTTTGGGAAGGCCTCCTCACTCTCTTCTTC 720
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2670 CTGGCAGTCTTCTCCCCTGGTGTGGTCCAGGTTTGGGAAGGCCTCCTCACTCTCTTCTTC 2729

Qy    721 TTTCCAGTGTGTGTCCTTCTGGCCTGGGTGGCAGATAAACGACTGCTCTTCTACAAATAC 780
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2730 TTTCCAGTGTGTGTCCTTCTGGCCTGGGTGGCAGATAAACGACTGCTCTTCTACAAATAC 2789

Qy    781 ATGCACAAAAAGTACCGCACAGACAAACACCGAGGAATTATCATAGAGACAGAGGGTGAC 840
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2790 ATGCACAAAAAGTACCGCACAGACAAACACCGAGGAATTATCATAGAGACAGAGGGTGAC 2849

Qy    841 CACCCTAAGGGCATTGAGATGGATGGGAAAATGATGAATTCCCATTTTCTAGATGGGAAC 900
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2850 CACCCTAAGGGCATTGAGATGGATGGGAAAATGATGAATTCCCATTTTCTAGATGGGAAC 2909

Qy    901 CTGGTGCCCCTGGAAGGGAAGGAAGTGGATGAGTCCCGCAGAGAGATGATCCGGATTCTC 960
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2910 CTGGTGCCCCTGGAAGGGAAGGAAGTGGATGAGTCCCGCAGAGAGATGATCCGGATTCTC 2969

Qy    961 AAGGATCTGAAGCAAAAACACCCAGAGAAGGACTTAGATCAGCTGGTGGAGATGGCCAAT 1020
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2970 AAGGATCTGAAGCAAAAACACCCAGAGAAGGACTTAGATCAGCTGGTGGAGATGGCCAAT 3029

Qy   1021 TACTATGCTCTTTCCCACCAACAGAAGAGCCGCGCCTTCTACCGTATCCAAGCCACTCGT 1080
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3030 TACTATGCTCTTTCCCACCAACAGAAGAGCCGCGCCTTCTACCGTATCCAAGCCACTCGT 3089

Qy   1081 ATGATGACTGGTGCAGGCAATATCCTGAAGAAACATGCAGCAGAACAAGCCAAGAAGGCC 1140
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3090 ATGATGACTGGTGCAGGCAATATCCTGAAGAAACATGCAGCAGAACAAGCCAAGAAGGCC 3149

Qy   1141 TCCAGCATGAGCGAGGTGCACACCGATGAGCCTGAGGACTTTATTTCCAAGGTCTTCTTT 1200
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3150 TCCAGCATGAGCGAGGTGCACACCGATGAGCCTGAGGACTTTATTTCCAAGGTCTTCTTT 3209

Qy   1201 GACCCATGTTCTTACCAGTGCCTGGAGAACTGTGGGGCTGTACTCCTGACAGTGGTGAGG 1260
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3210 GACCCATGTTCTTACCAGTGCCTGGAGAACTGTGGGGCTGTACTCCTGACAGTGGTGAGG 3269

Qy   1261 AAAGGGGGAGACATGTCAAAGACCATGTATGTGGACTACAAAACAGAGGATGGTTCTGCC 1320
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3270 AAAGGGGGAGACATGTCAAAGACCATGTATGTGGACTACAAAACAGAGGATGGTTCTGCC 3329

Qy   1321 AATGCAGGGGCTGACTATGAGTTCACAGAGGGCACGGTGGTTCTGAAGCCAGGAGAGACC 1380
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3330 AATGCAGGGGCTGACTATGAGTTCACAGAGGGCACGGTGGTTCTGAAGCCAGGAGAGACC 3389

Qy   1381 CAGAAGGAGTTCTCCGTGGGCATAATTGATGACGACATTTTTGAGGAGGATGAACACTTC 1440
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3390 CAGAAGGAGTTCTCCGTGGGCATAATTGATGACGACATTTTTGAGGAGGATGAACACTTC 3449

Qy   1441 TTTGTAAGGTTGAGCAATGTCCGCATAGAGGAGGAGCAGCCAGAGGAGGGGATGCCTCCA 1500
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3450 TTTGTAAGGTTGAGCAATGTCCGCATAGAGGAGGAGCAGCCAGAGGAGGGGATGCCTCCA 3509

Qy   1501 GCAATATTCAACAGTCTTCCCTTGCCTCGGGCTGTCCTAGCCTCCCCTTGTGTGGCCACA 1560
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Db   3510 GCAATATTCAACAGTCTTCCCTTGCCTCGGGCTGTCCTAGCCTCCCCTTGTGTGGCCACA 3569

Qy   1561 GTTACCATCTTGGATGATGACCATGCAGGCATCTTCACTTTTGAATGTGATACTATTCAT 1620
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3570 GTTACCATCTTGGATGATGACCATGCAGGCATCTTCACTTTTGAATGTGATACTATTCAT 3629

Qy   1621 GTCAGTGAGAGTATTGGTGTTATGGAGGTCAAGGTTCTGCGGACATCAGGTGCCCGGGGT 1680
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3630 GTCAGTGAGAGTATTGGTGTTATGGAGGTCAAGGTTCTGCGGACATCAGGTGCCCGGGGT 3689

Qy   1681 ACAGTCATCGTCCCCTTTAGGACAGTAGAAGGGACAGCCAAGGGTGGCGGTGAGGACTTT 1740
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   3690 ACAGTCATCGTCCCCTTTAGGACAGTAGAAGGGACAGCCAAGGGTGGCGGTGAGGACTTT 3749

Qy   1741 GAAGACACATATGGGGAGTTGGAATTCAAGAATGATGAAACTGTGAAA 1788
          ||||||||||||||||||||||||||||||||||||||||||| ||
Db   3750 GAAGACACATATGGGGAGTTGGAATTCAAGAATGATGAAACTGTGTAA 3797


RESULT 5
US-10-054-680-3
; Sequence 3, Application US/10054680
; Patent No. US20020132998A1
; GENERAL INFORMATION:
;  APPLICANT: Friddle, Carl Johan
;  APPLICANT:  Hilbun, Erin
;  TITLE OF INVENTION: No. US20020132998A1el Human Ion Exchanger Proteins and Polynuclec
;  TITLE OF INVENTION:  Same
;  FILE REFERENCE: LEX-0301-USA
;  CURRENT APPLICATION NUMBER: US/10/054,680
;  CURRENT FILING DATE:  2002-01-22
;  PRIOR APPLICATION NUMBER: US 60/263,384
;  PRIOR FILING DATE: 2001-01-23
;  NUMBER OF SEQ ID NOS: 5
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
;   LENGTH: 1863
;   TYPE: DNA
;   ORGANISM: homo sapiens
US-10-054-680-3

  Query Match            64.5%;  Score 1784.6;  DB 12;  Length 1863;
  Best Local Similarity  100.0%;  Pred. No. 0;
  Matches 1784;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 ATGGCGTGGTTAAGGTTGCAGCCTCTCACCTCTGCCTTCCTCCATTTTGGGCTGGTTACC 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 ATGGCGTGGTTAAGGTTGCAGCCTCTCACCTCTGCCTTCCTCCATTTTGGGCTGGTTACC 60

Qy     61 TTTGTGCTCTTCCTGAATGGTCTTCGAGCAGAGGCTGGTGGCTCAGGGGACGTGCCAAGC 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 TTTGTGCTCTTCCTGAATGGTCTTCGAGCAGAGGCTGGTGGCTCAGGGGACGTGCCAAGC 120

Qy    121 ACAGGGCAGAACAATGAGTCCTGTTCAGGGTCATCGGACTGCAAGGAGGGTGTCATCCTG 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 ACAGGGCAGAACAATGAGTCCTGTTCAGGGTCATCGGACTGCAAGGAGGGTGTCATCCTG 180

Qy    181 CCAATCTGGTACCCGGAGAACCCTTCCCTTGGGGACAAGATTGCCAGGGTCATTGTCTAT 240
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 CCAATCTGGTACCCGGAGAACCCTTCCCTTGGGGACAAGATTGCCAGGGTCATTGTCTAT 240

Qy    241 TTTGTGGCCCTGATATACATGTTCCTTGGGGTGTCCATCATTGCTGACCGCTTCATGGCA 300
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 TTTGTGGCCCTGATATACATGTTCCTTGGGGTGTCCATCATTGCTGACCGCTTCATGGCA 300

Qy    301 TCTATTGAAGTCATCACCTCTCAAGAGAGGGAGGTGACAATTAAGAAACCCAATGGAGAA 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 TCTATTGAAGTCATCACCTCTCAAGAGAGGGAGGTGACAATTAAGAAACCCAATGGAGAA 360

Qy    361 ACCAGCACAACCACTATTCGGGTCTGGAATGAAACTGTCTCCAACCTGACCCTTATGGCC 420
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    361 ACCAGCACAACCACTATTCGGGTCTGGAATGAAACTGTCTCCAACCTGACCCTTATGGCC 420

Qy    421 CTGGGTTCCTCTGCTCCTGAGATACTCCTCTCTTTAATTGAGGTGTGTGGTCATGGGTTC 480
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    421 CTGGGTTCCTCTGCTCCTGAGATACTCCTCTCTTTAATTGAGGTGTGTGGTCATGGGTTC 480

Qy    481 ATTGCTGGTGATCTGGGACCTTCTACCATTGTAGGGAGTGCAGCCTTCAACATGTTCATC 540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    481 ATTGCTGGTGATCTGGGACCTTCTACCATTGTAGGGAGTGCAGCCTTCAACATGTTCATC 540

Qy    541 ATCATTGGCATCTGTGTCTACGTGATCCCAGACGGAGAGACTCGCAAGATCAAGCATCTA 600
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    541 ATCATTGGCATCTGTGTCTACGTGATCCCAGACGGAGAGACTCGCAAGATCAAGCATCTA 600

Qy    601 CGAGTCTTCTTCATCACCGCTGCTTGGAGTATCTTTGCCTACATCTGGCTCTATATGATT 660
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    601 CGAGTCTTCTTCATCACCGCTGCTTGGAGTATCTTTGCCTACATCTGGCTCTATATGATT 660

Qy    661 CTGGCAGTCTTCTCCCCTGGTGTGGTCCAGGTTTGGGAAGGCCTCCTCACTCTCTTCTTC 720
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    661 CTGGCAGTCTTCTCCCCTGGTGTGGTCCAGGTTTGGGAAGGCCTCCTCACTCTCTTCTTC 720

Qy    721 TTTCCAGTGTGTGTCCTTCTGGCCTGGGTGGCAGATAAACGACTGCTCTTCTACAAATAC 780
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    721 TTTCCAGTGTGTGTCCTTCTGGCCTGGGTGGCAGATAAACGACTGCTCTTCTACAAATAC 780

Qy    781 ATGCACAAAAAGTACCGCACAGACAAACACCGAGGAATTATCATAGAGACAGAGGGTGAC 840
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    781 ATGCACAAAAAGTACCGCACAGACAAACACCGAGGAATTATCATAGAGACAGAGGGTGAC 840

Qy    841 CACCCTAAGGGCATTGAGATGGATGGGAAAATGATGAATTCCCATTTTCTAGATGGGAAC 900
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    841 CACCCTAAGGGCATTGAGATGGATGGGAAAATGATGAATTCCCATTTTCTAGATGGGAAC 900

Qy    901 CTGGTGCCCCTGGAAGGGAAGGAAGTGGATGAGTCCCGCAGAGAGATGATCCGGATTCTC 960
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    901 CTGGTGCCCCTGGAAGGGAAGGAAGTGGATGAGTCCCGCAGAGAGATGATCCGGATTCTC 960

Qy    961 AAGGATCTGAAGCAAAAACACCCAGAGAAGGACTTAGATCAGCTGGTGGAGATGGCCAAT 1020
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    961 AAGGATCTGAAGCAAAAACACCCAGAGAAGGACTTAGATCAGCTGGTGGAGATGGCCAAT 1020

Qy   1021 TACTATGCTCTTTCCCACCAACAGAAGAGCCGCGCCTTCTACCGTATCCAAGCCACTCGT 1080
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1021 TACTATGCTCTTTCCCACCAACAGAAGAGCCGCGCCTTCTACCGTATCCAAGCCACTCGT 1080

Qy   1081 ATGATGACTGGTGCAGGCAATATCCTGAAGAAACATGCAGCAGAACAAGCCAAGAAGGCC 1140
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1081 ATGATGACTGGTGCAGGCAATATCCTGAAGAAACATGCAGCAGAACAAGCCAAGAAGGCC 1140

Qy   1141 TCCAGCATGAGCGAGGTGCACACCGATGAGCCTGAGGACTTTATTTCCAAGGTCTTCTTT 1200
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1141 TCCAGCATGAGCGAGGTGCACACCGATGAGCCTGAGGACTTTATTTCCAAGGTCTTCTTT 1200

Qy   1201 GACCCATGTTCTTACCAGTGCCTGGAGAACTGTGGGGCTGTACTCCTGACAGTGGTGAGG 1260
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1201 GACCCATGTTCTTACCAGTGCCTGGAGAACTGTGGGGCTGTACTCCTGACAGTGGTGAGG 1260

Qy   1261 AAAGGGGGAGACATGTCAAAGACCATGTATGTGGACTACAAAACAGAGGATGGTTCTGCC 1320
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1261 AAAGGGGGAGACATGTCAAAGACCATGTATGTGGACTACAAAACAGAGGATGGTTCTGCC 1320

Qy   1321 AATGCAGGGGCTGACTATGAGTTCACAGAGGGCACGGTGGTTCTGAAGCCAGGAGAGACC 1380
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1321 AATGCAGGGGCTGACTATGAGTTCACAGAGGGCACGGTGGTTCTGAAGCCAGGAGAGACC 1380

Qy   1381 CAGAAGGAGTTCTCCGTGGGCATAATTGATGACGACATTTTTGAGGAGGATGAACACTTC 1440
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1381 CAGAAGGAGTTCTCCGTGGGCATAATTGATGACGACATTTTTGAGGAGGATGAACACTTC 1440

Qy   1441 TTTGTAAGGTTGAGCAATGTCCGCATAGAGGAGGAGCAGCCAGAGGAGGGGATGCCTCCA 1500
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1441 TTTGTAAGGTTGAGCAATGTCCGCATAGAGGAGGAGCAGCCAGAGGAGGGGATGCCTCCA 1500
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Qy   1501 GCAATATTCAACAGTCTTCCCTTGCCTCGGGCTGTCCTAGCCTCCCCTTGTGTGGCCACA 1560
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1501 GCAATATTCAACAGTCTTCCCTTGCCTCGGGCTGTCCTAGCCTCCCCTTGTGTGGCCACA 1560

Qy   1561 GTTACCATCTTGGATGATGACCATGCAGGCATCTTCACTTTTGAATGTGATACTATTCAT 1620
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1561 GTTACCATCTTGGATGATGACCATGCAGGCATCTTCACTTTTGAATGTGATACTATTCAT 1620

Qy   1621 GTCAGTGAGAGTATTGGTGTTATGGAGGTCAAGGTTCTGCGGACATCAGGTGCCCGGGGT 1680
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1621 GTCAGTGAGAGTATTGGTGTTATGGAGGTCAAGGTTCTGCGGACATCAGGTGCCCGGGGT 1680

Qy   1681 ACAGTCATCGTCCCCTTTAGGACAGTAGAAGGGACAGCCAAGGGTGGCGGTGAGGACTTT 1740
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1681 ACAGTCATCGTCCCCTTTAGGACAGTAGAAGGGACAGCCAAGGGTGGCGGTGAGGACTTT 1740

Qy   1741 GAAGACACATATGGGGAGTTGGAATTCAAGAATGATGAAACTGT 1784
          |||||||||||||||||||||||||||||||||||||||||||
Db   1741 GAAGACACATATGGGGAGTTGGAATTCAAGAATGATGAAACTGT 1784


 ESULT 6
 S-09-901-419-1
; Sequence 1, Application US/09901419
; Patent No. US20020069421A1
; GENERAL INFORMATION:
;  APPLICANT: The Curators of the University of Missouri
;  TITLE OF INVENTION: LARGE SCALE EXPRESSION AND PURIFICATION OF RECOMBINANT
;  TITLE OF INVENTION:  PROTEINS
;  FILE REFERENCE: UMO1531.1
;  CURRENT APPLICATION NUMBER: US/09/901,419
;  CURRENT FILING DATE:  2001-07-09
;  PRIOR APPLICATION NUMBER: 60/218,125
;  PRIOR FILING DATE: 2000-01-13
;  NUMBER OF SEQ ID NOS: 2
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
;   LENGTH: 4087
;   TYPE: DNA
;   ORGANISM: Bos taurus
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (268)..(3180)
;   NAME/KEY: sig_peptide
;   LOCATION: (268)..(363)
;   NAME/KEY: misc_feature
;   LOCATION: (3178)
;   OTHER INFORMATION: A Poly (H) affinity tag comprising 6 His residues
;   OTHER INFORMATION: have been inserted at the C-Terminus end of the
    OTHER INFORMATION: coding region of the protein
 S-09-901-419-1

  Query Match             44.4%;  Score 1227.8;  DB 10;  Length 4087;
  Best Local Similarity   67.1%;  Pred. No. 0;
  Matches 1935;  Conservative    0;  Mismatches  777;  Indels  171;  Gaps    7;

Qy     46 TTTGGGCTGGTTACCTTTGTGCTCTTCCTGAATGGTCTTCGAGCAGAGGCTGGTGGCTCA 105
          |||    || |  || | |||    || ||  |   | |   |   |     |||
Db    307 TTTCACGTGATAGCCATGGTGGCTCTCTTGTTTTCCCATGTGGACCATATAAGTGCTGAG 366

Qy    106 GGGGACGTGCCAAGCACAGGGCAGAACAATGAGTCCTGTTCAGGGTCATCGGACTGCAAG 165
             ||  ||  | |   |||  |  | | ||     ||| | || || |   |||| |||
Db    367 ACAGAAATGGAAGGAGAAGGCAACGAGACTGGCGAGTGTACTGGCTCCTATTACTGTAAG 426

Qy    166 GAGGGTGTCATCCTGCCAATCTGGTACCCGGAGAACCCTTCCCTTGGGGACAAGATTGCC 225
           |||| || ||  | || || ||| | ||  || |||||||| |||| ||||| |||||
Db    427 AAGGGGGTGATTTTACCCATTTGGGAGCCCCAGGACCCTTCCTTTGGAGACAAAATTGCT 486

Qy    226 AGGGTCATTGTCTATTTTGTGGCCCTGATATACATGTTCCTTGGGGTGTCCATCATTGCT 285
          || |  | ||| |||||||||||| || | |||||||| ||||| || || |||||||||
Db    487 AGAGCGACTGTGTATTTTGTGGCCATGGTCTACATGTTTCTTGGAGTCTCAATCATTGCT 546

Qy    286 GACCGCTTCATGGCATCTATTGAAGTCATCACCTCTCAAGAGAGGGAGGTGACAATTAAG 345
          ||||| |||||| | ||||| |||||||||| |||||||||  ||  | || || |||
Db    547 GACCGGTTCATGTCCTCTATAGAAGTCATCACGTCTCAAGAGAAAGAAATCACCATAAAG 606

Qy    346 AAACCCAATGGAGAAACCAGCACAACCACTATTCGGGTCTGGAATGAAACTGTCTCCAAC 405
          ||||||||||||| |||| ||  || ||| |  || |||||||||| || || ||||||
Db    607 AAACCCAATGGAGAGACCACCAAGACAACTGTGAGGATCTGGAATGAGACAGTGTCCAAC 666

Qy    406 CTGACCCTTATGGCCCTGGGTTCCTCTGCTCCTGAGATACTCCTCTCTTTAATTGAGGTG 465
          |||||| | |||||||||||| || || ||||| ||||| ||||| ||  |||| ||||||
Db    667 CTGACCTTGATGGCCCTGGGGTCTTCAGCTCCAGAGATTCTCCTTTCAGTAATCGAGGTG 726

Qy    466 TGTGGTCATGGGTTCATTGCTGGTGATCTGGGACCTTCTACCATTGTAGGGAGTGCAGCC 525
          ||||| |||   |||| ||| || || || || |||   ||||| || |||||||| ||
Db    727 TGTGGCCATAACTTCACTGCAGGAGACCTTGGCCCTAGCACCATCGTGGGGAGTGCTGCA 786

Qy    526 TTCAACATGTTCATCATCATTGGCATCTGTGTCTACGTGATCCCAGACGGAGAGACTCGC 585
          |||||||||||||||||||||| | | ||||| || ||  |||| || || |||||  |
Db    787 TTCAACATGTTCATCATCATTGCCCTTTGTGTGTATGTCGTCCCGGATGGGGAGACAAGG 846

Qy    586 AAGATCAAGCATCTACGAGTCTTCTTCATCACCGCTGCTTGGAGTATCTTTGCCTACATC 645
          |||||||||||||| || || |||||  | || || || ||||| |||||||||| | |
Db    847 AAGATCAAGCATCTGCGTGTGTTCTTTGTGACAGCAGCATGGAGCATCTTTGCCTATACC 906

Qy    646 TGGCTCTATATGATTCTGGCAGTCTTCTCCCCTGGTGTGGTCCAGGTTTGGGAAGGCCTC 705
          ||||| || || ||| || | |||  |||||||| || ||  |||| ||||||||  |
Db    907 TGGCTTTACATCATTTTGTCTGTCAGCTCCCCTGGGGTCGTGGAGGTCTGGGAAGGTTTG 966

Qy    706 CTCACTCTCTTCTTCTTTCCAGTGTGTGTCCTTCTGGCCTGGGTGGCAGATAAACGACTG 765
          || ||| |||||||||| ||  | || ||  | | || |||||||||| |  | ||
Db    967 CTTACTTTCTTCTTCTTCCCCATCTGCGTTGTGTTTGCTTGGGTGGCAGACAGGAGGCTT 1026

Qy    766 CTCTTCTACAAATACATGCACAAAAAGTACCGCACAGACAAACACCGAGGAATTATCATA 825
          || || ||||| ||  |  |||| | ||| ||  | | ||| ||  | ||||| || ||
Db   1027 CTGTTTTACAAGTATGTCTACAAGAGGTATCGGGCTGGCAAGCAGAGGGGAATGATTATT 1086

Qy    826 GAGACAGAGGGTGACCACCC---------TAAGGGCATTGAGATGGATGGGAAAATGATG 876
          ||    || || |||   ||           |  | ||||| ||||||||||| || |
Db   1087 GAACACGAAGGAGACAGGCCATCTTCCAAGACAGAAATTGAAATGGATGGGAAAGTGGTC 1146

Qy    877 AATTCCCATTTTC---------TAGATGGGAACCTGGTGCCCCTGGAAGGGAAG------ 921
          |||||||| ||           |||||||   ||||| |    ||  |   ||
Db   1147 AATTCCCATGTTGACAGTTTCTTAGATGGAGCCCTGGTTCTGGAGGTTGATGAGAGGGAC 1206

Qy    922 ---GAAGTGGATGAGTCCCGCAGAGAGATGATCCGGATTCTCAAGGATCTGAAGCAAAAA 978
             || |  || ||  || |  |||| |||    ||||||| ||||| || ||||| ||
Db   1207 CAAGATGATGAAGAAGCCAGGCGAGAAATGGCTAGGATTCTGAAGGAACTCAAGCAGAAG 1266

Qy    979 CACCCAGAGAAGGACTTAGATCAGCTGGTGGAGATGGCCAATTACTATGCTCTTTCCCAC 1038
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Db   1267 CATCCAGAGAAGGAAATAGAGCAATTAATAGAATTAGCCAATTACCAAGTCTTAAGTCAG 1326

Qy   1039 CAACAGAAGAGCCGCGCCTTCTACCGTATCCAAGCCACTCGTATGATGACTGGTGCAGGC 1098
          || || || || || || || |||||||| ||||| || ||  ||||||| || ||||||
Db   1327 CAGCAAAAAAAGTCGAGCGTTTTACCGTATTCAAGCTACCCGCCTGATGACCGGAGCAGGC 1386

Qy   1099 AATATCCTGAAGAAACATGCAGCAGAACAAGCCAAGAAGGCCTCCAGCATGAGCGAGGTG 1158
          || ||  | ||||  |||||||||| ||||||| ||| ||   |||||||  |||||
Db   1387 AACATTTTAAAGAGGCATGCAGCAGACCAAGCCAGGAAAGCTGTCAGCATGCATGAGGTC 1446

Qy   1159 CACACCGATGAGCCTG---AGGACTTTATTTCCAAGGTCTTCTTTGACCCATGTTCTTAC 1215
           |||| || | | |||   | |||  | |    ||| |||||||||| | | |  | ||
Db   1447 AACACGGAAGTGGCTGAAAATGACCCTGTCAGTAAGATCTTCTTTGAACAAGGGACATAT 1506

Qy   1216 CAGTGCCTGGAGAACTGTGGGGCTGTACTCCTGACAGTGGTGAGGAAAGGGGGAGACATG 1275
          ||||| |||||||||||||  | |||  ||||||  |  |  | | ||| || ||  ||
Db   1507 CAGTGTCTGGAGAACTGTGGCACAGTAGCCCTGACCATTATCCGCAGAGGTGGTGATTTG 1566

Qy   1276 TCAAAGACCATGTATGTGGACTACAAAACAGAGGATGGTTCTGCCAATGCAGGGGCTGAC 1335
           | || ||  ||| ||| |||| || ||||||||||||  | ||||||| ||  ||||
Db   1567 ACCAACACTGTGTTTGTTGACTTCAGAACAGAGGATGGCACAGCCAATGCTGGATCTGAT 1626

Qy   1336 TATGAGTTCACAGAGGGCACGGTGGTTCTGAAGCCAGGAGAGACCCAGAAGGAGTTCTCC 1395
          || || || || || || || |||||  | ||||| || ||||||||||||||  ||
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Db   1627 TACGAATTTACCGAAGGAACTGTGGTCTTTAAGCCTGGTGAGACCCAGAAGGAAATCAGA 1686

Qy   1396 GTGGGCATAATTGATGACGACATTTTTGAGGAGGATGAACACTTCTTTGTAAGGTTGAGC 1455
          || ||||| |||||||| ||||| ||||||||||||||  | ||| ||||     | |||
Db   1687 GTTGGCATCATTGATGATGACATCTTTGAGGAGGATGAGAATTTCCTTGTGCATCTCAGC 1746

Qy   1456 AATGTCCGCATAGAGGAGGAGCAGCCAGAGGAGGGGATGCCTCCAGCAATATTCAACAGT 1515
          || |||    ||     |||     | || || || || | |   |||          ||||
Db   1747 AACGTCAAAGTATCTTTGGAAGCCTCGGAAGACGGCATCCTGGAAGC---------CAGT 1797

Qy   1516 CTTCCCTTGCCTCGGGCTGTCCTAGCCTCCCCTTGTGTGGCCACAGTTACCATCTTGGAT 1575
          | |  ||   | |  |||  ||| |  ||||| |     ||||| || || || || |||
Db   1798 CATGTCTCTACCCTTGCTTGCCTGGGATCCCCCTCCACTGCCACCGTGACTATTTTTGAT 1857

Qy   1576 GATGACCATGCAGGCATCTTCACTTTTGAATGTGATACTATTCATGTCAGTGAGAGTATT 1635
          |||||||||||| |||||||| ||||||||          | ||||| ||||||||  |||
Db   1858 GATGACCATGCTGGCATCTTTACTTTTGAGGAACCGGTGACTCATGTGAGTGAGAGCATT 1917

Qy   1636 GGTGTTATGGAGGTCAAGGTTCTGCGGACATCAGGTGCCCGGGGTACAGTCATCGTCCCC 1695
          ||  | |||||||| || |||||| | ||||| || || || || |  || ||||| |||
Db   1918 GGCATCATGGAGGTGAAAGTTCTGAGAACATCTGGAGCACGTGGAAATGTTATCGTTCCC 1977

Qy   1696 TTTAGGACAGTAGAAGGGACAGCCAAGGGTGGCGGTGAGGACTTTGAAGACACATATGGG 1755
          | || |||  | || ||||| ||||  ||||| || |||||||||||  |||||||  ||
Db   1978 TATAAGACCATTGAGGGGACCGCCAGAGGTGGAGGGGAGGACTTTGAGGACACATGCGGA 2037

Qy   1756 GAGTTGGAATTCAAGAATGATGAAACTGTGAAAACCATAAGGGTTAAAATAGTAGATGAG 1815
          ||| | || ||| ||||||| |||| ||| ||||| |||   || ||  || | |||||
Db   2038 GAGCTCGAGTTCCAGAATGACGAAATTGTCAAAACAATATCAGTCAAGGTAATTGATGAT 2097

Qy   1816 GAGGAATACGAAAGGCAAGAGAATTTCTTCATTGCCCTTGGTGAACCGAAATGGATGG-- 1873
          ||||| || || |   |  |||  |||||| |||   |||| || ||      | |||
Db   2098 GAGGAGTATGAGAAAAACAAGACCTTCTTCCTTGAGATTGGAGAGCCCCGCCTGGTGGAG 2157

Qy   1874 ------------------------------------------------AACGTGGAA 1882
                                                           |  | | ||
Db   2158 ATGAGTGAGAAGAAAGCCCTGTTATTGAATGAGCTTGGTGGCTTCACAATAACAGGGAAA 2217

Qy   1883 TATCAGATGTGACAGACAG---------------------------------------- 1901
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Db   2218 TACCTGTATGGCCAGCCTGTCTTCAGGAAAGTTCATGCTAGAGAACATCCACTCCCCTCT 2277

Qy   1902 ------------------------------------GAAGCTGACTATGGAAGAAGAG 1923
                                               |   |||||  |   |||| |||
Db   2278 ACTATAATCACCATCGCAGATGAATATGATGACAAGCAGCCACTGACCAGCAAAGAGGAG 2337

Qy   1924 GAGGCCAAGAGGATAGCAGAGATGGGAAAGCCAGTATTGGGTGAACACCCCAAACTAGAA 1983
          || |  | | | || || || |||||    ||  |  |||| || ||| ||| ||| ||
Db   2338 GAAGAGAGGCGCATTGCGGAAATGGGGCGCCCCATTCTGGGAGAGCACACCAGACTGGAG 2397

Qy   1984 GTCATCATTGAAGAGTCCTATGAGTTCAAGACTACGGTGGACAAACTGATCAAGAAGACA 2043
          || |||||||||| ||||| |||||||||| ||| |||||||||||||| |||||||||
Db   2398 GTGATCATTGAAGAATCCTACGAGTTCAAGAGTACCGTGGACAAACTGATTAAGAAGACA 2457

Qy   2044 AACCTGGCCTTGGTTGTGGGGACCCATTCCTGGAGGGACCAGTTCATGGAGGCCATCACC 2103
          ||||| ||| | || || ||||| |   |||||| || |||||||| ||||| |||||
Db   2458 AACCTAGCCCTCGTGGTTGGGACGAACAGCTGGAGAGAGCAGTTCATCGAGGCGATCACT 2517

Qy   2104 GTCAGTGCAGCAGGGGATGAGGATGAGGATGAATCCGGGGAGGAGAGGCTGCCCTCCTGC 2163
          ||||||||  |  |  ||||| ||||| || ||||  |||||||||| ||||||||||||
Db   2518 GTCAGTGCTGGGGAAGATGACGATGACGACGAATGTGGGGAGGAGAAGCTGCCCTCCTGT 2577

Qy   2164 TTTGACTACGTCATGCACTTCCTGACTGTCTTCTGGAAGGTGCTGTTTGCCTGTGTGCCC 2223
          |||||||||||  |||||||| |||||||| |||||||||||  || ||  |||| ||| |||
Db   2578 TTTGACTACGTGATGCACTTTCTGACTGTGTTCTGGAAGGTCCTCTTCGCCTTTGTCCCC 2637

Qy   2224 CCCACAGAGTACTGCCACGGCTGGGCCTGCTTCGCCGTCTCCATCCTCATCATTGGCATG 2283
          ||  ||||||||||  ||||||||| || |||  |||||||||||||| || ||| |
Db   2638 CCGACAGAGTACTGGAACGGCTGGGCGTGTTTCATCGTCTCCATCCTCATGATCGGCCTA 2697

Qy   2284 CTCACCGCCATCATTGGGGACCTGGCCTCGCACTTCGGCTGCACCATTGGTCTCAAAGAT 2343
          || || ||  ||||||| ||||| || || ||||||| |||||||| |  || || |||
Db   2698 CTGACGGCTTTCATTGGAGACCTCGCTTCCCACTTCGCCTGCACCATCGCCCTGAAGGAT 2757

Qy   2344 TCAGTCACAGCTGTTGTTTTCGTGGCATTTGGCACCTCTGTCCCAGATACGTTTGCCAGC 2403
          || || || || || || ||||| ||  |||| ||||| || ||||| || ||||| |||
Db   2758 TCCGTGACCGCGGTGGTGTTCGTTGCGCTTGGAACCTCAGTGCCAGACACATTTGCAAGC 2817

Qy   2404 AAAGCTGCTGCCCTCCAGGATGTATATGCAGACGCCTCCATTGGCAACGTGACGGGCAGC 2463
          ||||  || |||  ||||||    ||||| || || ||||| || ||||| || ||||||
Db   2818 AAAGTGGCCGCCACCCAGGACCAGTATGCGGATGCATCCATAGGTAACGTCACAGGCAGC 2877

Qy   2464 AACGCCGTCAATGTCTTCCTGGGCATCGGCCTGGCCTGGTCCGTGGCCGCCATCTACTGG 2523
          |||||  || || ||||||||||||||||  |||||||||| | ||||||||||||
Db   2878 AACGCGGTGAACGTCTTCCTGGGCATCGGTGTGGCCTGGTCCATCGCCGCCATCTACCAC 2937

Qy   2524 GCTCTGCAGGGACAGGAGTTCCACGTGTCGGCCGGCACACTGGCCTTCTCCGTCACCCTC 2583
          ||      | ||  |  ||||| | |||||  | ||||| || || || || ||||| |||
Db   2938 GCGGCCAACGGGGAACAGTTCAAAGTGTCCCCTGGCACGCTAGCTTTTTCTGTCACTCTC 2997

Qy   2584 TTCACCATCTTTGCATTTGTCTGCATCAGCGTGCTCTTGTACCGAAGGCGGCCGCACCTG 2643
          |||||||| ||||| ||  ||     |  | |||||  |||| ||  || ||||  |  |
Db   2998 TTCACCATTTTTGCTTTCATCAATGTGGGGGTGCTGCTGTATCGGCGGAGGCCAGAAATT 3057

Qy   2644 GGAGGGGAGCTTGGTGGCCCCCGTGGCTGCAAGCTCGCCACAACATGGCTCTTTGTGAGC 2703
          ||||| ||||| ||||| |||||       |||||||  |||| | || |||||||||  |
Db   3058 GGAGGTGAGCTGGGTGGGCCCCGGACTGCCAAGCTCCTCACATCCTGCCTCTTTGTGCTC 3117

Qy   2704 CTGTGGCTCCTCTACATACTCTTTGCCACACTAGAGGCCTATTGCTACATCAAGGGGTTC 2763
          |||||||| | ||||  |||| || | || |||||||| ||| |||| || || |||
Db   3118 CTGTGGCTCTTGTACATTTTCTTCTCCTCCCTGGAGGCCTACTGCCACATAAAAGGCTTC 3177

Qy   2764 TAA 2766
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Db   3178 TAA 3180
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RESULT 7
US-09-864-761-16939
; Sequence 16939, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
;  APPLICANT: Penn, Sharron G.
;  APPLICANT:  Rank, David R.
;  APPLICANT:  Hanzel, David K.
;  APPLICANT:  Chen, Wensheng
;  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FO
;  TITLE OF INVENTION:  GENE EXPRESSION ANALYSIS BY MICROARRAY
;  FILE REFERENCE: Aeomica-X-1
;  CURRENT APPLICATION NUMBER: US/09/864,761
;  CURRENT FILING DATE:  2001-05-23
;  PRIOR APPLICATION NUMBER: US 60/180,312
;  PRIOR FILING DATE: 2000-02-04
;  PRIOR APPLICATION NUMBER: US 60/207,456
;  PRIOR FILING DATE: 2000-05-26
;  PRIOR APPLICATION NUMBER: US 09/632,366
;  PRIOR FILING DATE: 2000-08-03
;  PRIOR APPLICATION NUMBER: GB 24263.6
;  PRIOR FILING DATE: 2000-10-04
;  PRIOR APPLICATION NUMBER: US 60/236,359
;  PRIOR FILING DATE: 2000-09-27
;  PRIOR APPLICATION NUMBER: PCT/US01/00666
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00667
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00664
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00669
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00665
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00668
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00663
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00662
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;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00661
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00670
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: US 60/234,687
;  PRIOR FILING DATE: 2000-09-21
;  PRIOR APPLICATION NUMBER: US 09/608,408
;  PRIOR FILING DATE: 2000-06-30
;  PRIOR APPLICATION NUMBER: US 09/774,203
;  PRIOR FILING DATE: 2001-01-29
;  NUMBER OF SEQ ID NOS: 49117
;  SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 16939
;   LENGTH: 1836
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: MAP TO AC007281.3
;   OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 0.64
;   OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 0.68
;   OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 0.69
;   OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 6.1
;   OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 0.83
;   OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 1.3
;   OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.68
;   OTHER INFORMATION: NT HIT: X91213.1, EVALUE 0.00e+00
;   OTHER INFORMATION: EST_HUMAN HIT: AW452398.1, EVALUE 0.00e+00
;   OTHER INFORMATION: SWISSPROT HIT: P32418, EVALUE 0.00e+00
US-09-864-761-16939

  Query Match             28.5%;  Score 787.2;  DB 10;  Length 1836;
  Best Local Similarity   68.3%;  Pred. No. 2.4e-221;
  Matches 1168;  Conservative    0;  Mismatches  503;  Indels   39;  Gaps    4;

Qy    109 GACGTGCCAAGCACAGGGCAGAACAATGAGTCCTGTTCAGGGTCATCGGACTGCAAGGAG 168
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Db    133 GAAATGGAAGGAGAAGGAAATGAAACTGGTGAATGTACTGGATCATATTACTGTAAGAAA 192

Qy    169 GGTGTCATCCTGCCAATCTGGTACCCGGAGAACCCTTCCCTTGGGGACAAGATTGCCAGG 228
          || || ||  |||| || ||| | ||  |  |||||||  |||||||||| ||||| ||
Db    193 GGGGTGATTTTGCCCATTTGGGAACCCCAAGACCCTTCTTTTGGGGACAAAATTGCTAGA 252

Qy    229 GTCATTGTCTATTTTGTGGCCCTGATATACATGTTCCTTGGGGTGTCCATCATTGCTGAC 288
          |  | ||| |||||||||||| || | |||||||| ||||| || || ||||| |||||
Db    253 GCTACTGTGTATTTTGTGGCCATGGTCTACATGTTTCTTGGAGTCTCTATCATAGCTGAT 312

Qy    289 CGCTTCATGGCATCTATTGAAGTCATCACCTCTCAAGAGAGGGAGGTGACAATTAAGAAA 348
          || |||||| | ||||| |||||||||| |||||||| |  ||  | || || ||||||
Db    313 CGGTTCATGTCCTCTATAGAAGTCATCACATCTCAAGAAAAAGAAATAACCATAAAGAAA 372

Qy    349 CCCAATGGAGAAACCAGCACAACCACTATTCGGGTCTGGAATGAAACTGTCTCCAACCTG 408
          |||||||||| |||| ||  || ||| |  || |||||||||||| || || ||||||
Db    373 CCCAATGGAGAGACCACCAAGACAACTGTGAGGATCTGGAATGAAACAGTTTCTAACCTG 432

Qy    409 ACCCTTATGGCCCTGGGTTCCTCTGCTCCTGAGATACTCCTCTCTTTAATTGAGGTGTGT 468
          ||| | |||||||||| || |||||||||||||| ||||| ||  ||||||| ||||||
Db    433 ACCTTGATGGCCCTGGGATCTTCTGCTCCTGAGATTCTCCTTTCAGTAATTGAAGTGTGT 492

Qy    469 GGTCATGGGTTCATTGCTGGTGATCTGGGACCTTCTACCATTGTAGGGAGTGCAGCCTTC 528
          || |||  |||| ||| || || || ||| |||||  || || ||||| || || ||| |
Db    493 GGCCATAACTTCACTGCAGGAGACCTCGGTCCTAGCACCATCGTGGGAAGTGCTGCATTC 552

Qy    529 AACATGTTCATCATCATTGGCATCTGTGTCTACGTGATCCCAGACGGAGAGACTCGCAAG 588
          || |||||||||| ||||  ||||||| || ||| | || |||||||||| | |||
Db    553 AATATGTTCATCATTATTGCACTCTGTGTTTATGTGGTGCCTGACGGAGAGACAAGGAAG 612

Qy    589 ATCAAGCATCTACGAGTCTTCTTCATCACCGCTGCTTGGAGTATCTTTGCCTACATCTGG 648
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Db    613 ATTAAGCATTTGCGTGTCTTCTTTGTGACAGCAGCCTGGAGCATCTTTGCCTACACCTGG 672

Qy    649 CTCTATATGATTCTGGCAGTCTTCTCCCCTGGTGTGGTCCAGGTTTGGGAAGGCCTCCTC 708
          || || || ||| || | ||| | || |||||||| ||  |||| ||||||||  | ||

Db    673 CTTTACATTATTTTGTCTGTCATATCTCCTGGTGTTGTGGAGGTCTGGGAAGGTTTGCTT 732

Qy    709 ACTCTCTTCTTCTTTCCAGTGTGTGTCCTTCTGGCCTGGGTGGCAGATAAACGACTGCTC 768
          ||| ||||||||||||  | |||||  |  | || |||||  || ||||   |||| ||
Db    733 ACTTTCTTCTTCTTTCCCATCTGTGTTGTGTTCGCTTGGGTAGCGGATAGGAGACTTCTG 792

Qy    769 TTCTACAAATACATGCACAAAAAGTACCGCACAGACAAACACCGAGGAATTATCATAGAG 828
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Db    793 TTTTACAAGTATGTCTACAAGAGGTATCGAGCTGGCAAGCAGAGGGGGATGATTATTGAA 852

Qy    829 ACAGAGGGTGACCACCC---------TAAGGGCATTGAGATGGATGGGAAAATGATGAAT 879
            || || |||   ||          |  | ||||| ||||| |||||| || | |||
Db    853 CATGAAGGAGACAGGCCATCTTCTAAGACTGAAATTGAAATGGACGGGAAAGTGGTCAAT 912

Qy    880 TCCCATTTTCTAGATGGGAACCTGGTGCCCCTGGAAGGGAAG------------------ 921
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Db    913 TCTCATGTTGAAAATTTCTTAGATGGTGCTCTGGTTCTGGAGGTGGATGAGAGGGACCAA 972

Qy    922 GAAGTGGATGAGTCCCGCAGAGAGATGATCCGGATTCTCAAGGATCTGAAGCAAAAACAC 981
          || |  || ||  |  |  |||| |||    ||||||| ||||| || ||||| || ||
Db    973 GATGATGAAGAAGCTAGGCGAGAAATGGCTAGGATTCTGAAGGAACTTAAGCAGAAGCAT 1032

Qy    982 CCAGAGAAGGACTTAGATCAGCTGGTGGAGATGGCCAATTACTATGCTCTTTCCCACCAA 1041
          ||||| || ||  |||| ||  |  | ||  | || || ||| | |  ||    || ||
Db   1033 CCAGATAAAGAAATAGAGCAATTAATAGAATTAGCTAACTACCAAGTCCTAAGTCAGCAG 1092

Qy   1042 CAGAAGAGCCGCGCCTTCTACCGTATCCAAGCCACTCGTATGATGACTGGTGCAGGCAAT 1101
          || || ||  | || || || || ||||| |||||  | |||||||| || |||||
Db   1093 CAAAAAAGTAGAGCATTTTATCGCATTCAAGCTACTCGCCTCATGACTGGAGCTGGCAAC 1152

Qy   1102 ATCCTGAAGAAACATGCAGCAGAACAAGCCAAGAAGGCCTCCAGCATGAGCGAGGTGCAC 1161
          ||  | ||||  |||||||| || ||||| | ||||||   |||||||  ||||||  ||
Db   1153 ATTTTAAAGAGGCATGCAGCTGACCAAGCAAGGAAGGCTGTCAGCATGCACGAGGTCAAC 1212

Qy   1162 ACCGATGAGCCTG---AGGACTTTATTTCCAAGGTCTTCTTTGACCCATGTTCTTACCAG 1218
          || || | | |||   | |||  | ||   ||| ||||||||||| | | |  | || |||
Db   1213 ACTGAAGTGACTGAAAATGACCCTGTTAGTAAGATCTTCTTTGAACAAGGGACATATCAG 1272

Qy   1219 TGCCTGGAGAACTGTGGGGCTGTACTCCTGACAGTGGTGAGGAAAGGGGGAGACATGTCA 1278
          || ||||||||||||||  ||||   ||| ||  |  | | ||| || ||  || | |
Db   1273 TGTCTGGAGAACTGTGGTACTGTGGCCCTTACCATTATCCGCAGAGGTGGTGATTTGACT 1332

Qy   1279 AAGACCATGTATGTGGACTACAAAACAGAGGATGGTTCTGCCAATGCAGGGGCTGACTAT 1338
          ||·||  ||| ||| |||| || |||||||||||  | || ||||| ||| |||| |||
Db   1333 AACACTGTGTTTGTTGACTTCAGAACAGAGGATGGCACAGCAAATGCTGGGTCTGATTAT 1392

Qy   1339 GAGTTCACAGAGGGCACGGTGGTTCTGAAGCCAGGAGAGACCCAGAAGGAGTTCTCCGTG 1398
          || || || || || || |||||  | ||||| || || ||||||||||  ||   |||
Db   1393 GAATTTACTGAAGGAACTGTGGTGTTTAAGCCTGGTGATACCCAGAAGGAAATCAGAGTG 1452

Qy   1399 GGCATAATTGATGACGACATTTTTGAGGAGGATGAACACTTCTTTGTAAGGTTGAGCAAT 1458
          || || || |||| || || |||||||||||||| | ||| ||||     | ||||||
Db   1453 GGTATCATAGATGATGATATCTTTGAGGAGGATGAAAATTTCCTTGTGCATCTCAGCAAT 1512

Qy   1459 GTCCGCATAGAGGAGGAGCAGCCAGAGGAGGGGATGCCTCCAGCAATATTCAACAGTCTT 1518
          |||    ||      ||    |||| || || || |    |||          || || |
Db   1513 GTCAAAGTATCTTCTGAAGCTTCAGAAGATGGCATACTGGAAGC---------CAATCAT 1563

Qy   1519 CCCTTGCCTCGGGCTGTCCTAGCCTCCCCTTGTGTGGCCACAGTTACCATCTTGGATGAT 1578
            |  | |  |||  ||| |  || || |      ||||| || || || || ||||||
Db   1564 GTTTCTACACTTGCTTGCCTCGGATCTCCCTCCACTGCCACTGTAACTATTTTTGATGAT 1623

Qy   1579 GACCATGCAGGCATCTTCACTTTTGAATGTGATACTATTCATGTCAGTGAGAGTATTGGT 1638
          ||||| |||||||| || |||||||        |  | |||||| |||||||| |||||
Db   1624 GACCACGCAGGCATTTTTACTTTTGAGGAACCTGTGACTCATGTGAGTGAGAGCATTGGC 1683

Qy   1639 GTTATGGAGGTCAAGGTTCTGCGGACATCAGGTGCCCGGGGTACAGTCATCGTCCCCTTT 1698
          | |||||||| || ||  || | |||| || || || || |  || |||||| || | |
Db   1684 ATCATGGAGGTGAAAGTATTGAGAACATCTGGAGCTCGAGGAAATGTTATCGTTCCATAT 1743

Qy   1699 AGGACAGTAGAAGGGACAGCCAAGGGTGGCGGTGAGGACTTTGAAGACACATATGGGGAG 1758
          |  ||  | |||||||| ||||  |||||| || ||||| ||||| ||||| | ||| |||
Db   1744 AAAACCATCGAAGGGACTGCCAGAGGTGGAGGGGAGGATTTTGAGGACACTTGTGGAGAG 1803
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Qy   1759 TTGGAATTCAAGAATGATGAAACTGTGAAA 1788
          | |||||| |||||||||||| |||| ||
Db   1804 CTCGAATTCCAGAATGATGAAATTGTGTAA 1833


RESULT 8
US-09-864-761-1172/c
; Sequence 1172, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
;  APPLICANT: Penn, Sharron G.
;  APPLICANT:  Rank, David R.
;  APPLICANT:  Hanzel, David K.
;  APPLICANT:  Chen, Wensheng
;  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
;  TITLE OF INVENTION:  GENE EXPRESSION ANALYSIS BY MICROARRAY
;  FILE REFERENCE: Aeomica-X-1
;  CURRENT APPLICATION NUMBER: US/09/864,761
;  CURRENT FILING DATE:  2001-05-23
;  PRIOR APPLICATION NUMBER: US 60/180,312
;  PRIOR FILING DATE: 2000-02-04
;  PRIOR APPLICATION NUMBER: US 60/207,456
;  PRIOR FILING DATE: 2000-05-26
;  PRIOR APPLICATION NUMBER: US 09/632,366
;  PRIOR FILING DATE: 2000-08-03
;  PRIOR APPLICATION NUMBER: GB 24263.6
;  PRIOR FILING DATE: 2000-10-04
;  PRIOR APPLICATION NUMBER: US 60/236,359
;  PRIOR FILING DATE: 2000-09-27
;  PRIOR APPLICATION NUMBER: PCT/US01/00666
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00667
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00664
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00669
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00665
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00668
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00663
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00662
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00661
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00670
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: US 60/234,687
;  PRIOR FILING DATE: 2000-09-21
;  PRIOR APPLICATION NUMBER: US 09/608,408
;  PRIOR FILING DATE: 2000-06-30
;  PRIOR APPLICATION NUMBER: US 09/774,203
;  PRIOR FILING DATE: 2001-01-29
;  NUMBER OF SEQ ID NOS: 49117
;  SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 1172
;   LENGTH: 381
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: MAP TO AC007254.2
;   OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 1.5
;   OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 1.2
;   OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 1.3
;   OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 0.97
;   OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 4.8
;   OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 2.4
;   OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 0.88
;   OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 5.6
;   OTHER INFORMATION: EXPRESSED IN HBL100, SIGNAL = 1.2
;   OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 0.96
US-09-864-761-1172

  Query Match             7.9%;  Score 219.4;  DB 10;  Length 381;
  Best Local Similarity   74.3%;  Pred. No. 1.4e-54;
  Matches  277;  Conservative    0;  Mismatches   96;  Indels    0;  Gaps    0;

Qy   2387 CAGATACGTTTGCCAGCAAAGCTGCTGCCCTCCAGGATGTATATGCAGACGCCTCCATTG 2446
          |||| || |||||||||||||  || |||  ||||||    |||||||||||||||||| |
Db    374 CAGACACATTTGCCAGCAAAGTGGCAGCCACCCAGGACCAGTATGCAGACGCCTCCATAG 315

Qy   2447 GCAACGTGACGGGCAGCAACGCCGTCAATGTCTTCCTGGGCATCGGCCTGGCCTGGTCCG 2506
          | ||||| |||||||||||||| || |||||||||||||| |||||  ||||||||||
Db    314 GTAACGTCACGGGCAGCAACGCGGTGAATGTCTTCCTGGGAATCGGTGTGGCCTGGTCCA 255

Qy   2507 TGGCCGCCATCTACTGGGCTCTGCAGGGACAGGAGTTCCACGTGTCGGCCGGCACACTGG 2566
          | || |||||||||   ||     | ||  |  ||||| | |||||  | ||||||| |
Db    254 TCGCTGCCATCTACCACGCAGCCAATGGGGAACAGTTCAAAGTGTCCCCTGGCACACTAG 195

Qy   2567 CCTTCTCCGTCACCCTCTTCACCATCTTTGCATTTGTCTGCATCAGCGTGCTCTTGTACC 2626
          | ||||| ||||| |||||||||| ||||| ||  ||    |  | |||||  |||| |
Db    194 CTTTCTCTGTCACTCTCTTCACCATTTTTGCTTTCATCAATGTGGGGGTGCTGCTGTATC 135

Qy   2627 GAAGGCGGCCGCACCTGGGAGGGGAGCTTGGTGGCCCCCGTGGCTGCAAGCTCGCCACAA 2686
          |  || ||||  |  | ||||| ||||| ||||| |||||      |||||||  ||||
Db    134 GGCGGAGGCCAGAAATCGGAGGTGAGCTGGGTGGGCCCCGGACTGCCAAGCTCCTCACAT 75

Qy   2687 CATGGCTCTTTGTGAGCCTGTGGCTCCTCTACATACTCTTTGCCACACTAGAGGCCTATT 2746
          | || |||||||||  ||| |||||| | |||||  ||||  || | || ||||||||
Db     74 CCTGCCTCTTTGTGCTCCTATGGCTCTTGTACATTTTCTTCTCCTCCCTGGAGGCCTACT 15

Qy   2747 GCTACATCAAGGG 2759
          || |||| || ||
Db     14 GCCACATAAAAGG 2


RESULT 9
US-09-864-761-646
; Sequence 646, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
;  APPLICANT: Penn, Sharron G.
;  APPLICANT:  Rank, David R.
;  APPLICANT:  Hanzel, David K.
;  APPLICANT:  Chen, Wensheng
;  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FO
;  TITLE OF INVENTION:  GENE EXPRESSION ANALYSIS BY MICROARRAY
;  FILE REFERENCE: Aeomica-X-1
;  CURRENT APPLICATION NUMBER: US/09/864,761
;  CURRENT FILING DATE:  2001-05-23
;  PRIOR APPLICATION NUMBER: US 60/180,312
;  PRIOR FILING DATE: 2000-02-04
;  PRIOR APPLICATION NUMBER: US 60/207,456
;  PRIOR FILING DATE: 2000-05-26
;  PRIOR APPLICATION NUMBER: US 09/632,366
;  PRIOR FILING DATE: 2000-08-03
;  PRIOR APPLICATION NUMBER: GB 24263.6
;  PRIOR FILING DATE: 2000-10-04
;  PRIOR APPLICATION NUMBER: US 60/236,359
;  PRIOR FILING DATE: 2000-09-27
;  PRIOR APPLICATION NUMBER: PCT/US01/00666
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00667
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00664
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00669
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00665
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00668
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00663
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;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00662
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00661
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00670
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: US 60/234,687
;  PRIOR FILING DATE: 2000-09-21
;  PRIOR APPLICATION NUMBER: US 09/608,408
;  PRIOR FILING DATE: 2000-06-30
;  PRIOR APPLICATION NUMBER: US 09/774,203
;  PRIOR FILING DATE: 2001-01-29
;  NUMBER OF SEQ ID NOS: 49117
;  SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 646
;   LENGTH: 491
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: MAP TO AC007377.3
    OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 0.82
    OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 1.1
,   OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 0.99
;   OTHER INFORMATION: EXPRESSED IN HBL100, SIGNAL = 1.1
;   OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 2.2
;   OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 1.1
;   OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 0.8
;   OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 1.2
;   OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 0.87
;   OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 0.9
US-09-864-761-646

  Query Match             6.7%;  Score 186.4;  DB 10;  Length 491;
  Best Local Similarity   78.5%;  Pred. No. 8.8e-45;
  Matches  223;  Conservative    0;  Mismatches   61;  Indels    0;  Gaps    0;

Qy   2105 TCAGTGCAGCAGGGGATGAGGATGAGGATGAATCCGGGGAGGAGAGGCTGCCCTCCTGCT 2164
          ||  |  ||  |  ||||| || || |||||||  ||||| |||| ||||||||||||| |
Db    208 TCTCTCTAGGGGAAGATGATGACGACGATGAATGTGGGGAAGAGAAGCTGCCCTCCTGTT 267

Qy   2165 TTGACTACGTCATGCACTTCCTGACTGTCTTCTGGAAGGTGCTGTTTGCCTGTGTGCCCC 2224
          | || ||||| |||||||| |||||||| |||||||||| |||||||||  || ||||
Db    268 TCGATTACGTGATGCACTTTCTGACTGTGTTCTGGAAGGTCCTGTTTGCCTTCGTCCCCC 327

Qy   2225 CCACAGAGTACTGCCACGGCTGGGCCTGCTTCGCCGTCTCCATCCTCATCATTGGCATGC 2284
          | || || |||||  | |||||||| || |||   |||||||||||||| |||||| | |
Db    328 CTACTGAATACTGGAATGGCTGGGCGTGTTTCATTGTCTCCATCCTCATGATTGGCCTAC 387

Qy   2285 TCACCGCCATCATTGGGGACCTGGCCTCGCACTTCGGCTGCACCATTGGTCTCAAAGATT 2344
          | || ||  ||||||| |||||||| || ||||| |||||||||||||| || |||||||
Db    388 TGACAGCTTTCATTGGAGACCTGGCTTCCCACTTTGGCTGCACCATTGGCCTGAAAGATT 447

Qy   2345 CAGTCACAGCTGTTGTTTTCGTGGCATTTGGCACCTCTGTCCCA 2388
          | || || || || || ||||| ||| |||| || || || |||
Db    448 CTGTGACTGCAGTCGTGTTCGTCGCACTTGGAACATCAGTGCCA 491


RESULT 10
US-09-864-761-17437
; Sequence 17437, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
;  APPLICANT: Penn, Sharron G.
;  APPLICANT:  Rank, David R.
;  APPLICANT:  Hanzel, David K.
;  APPLICANT:  Chen, Wensheng
;  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
;  TITLE OF INVENTION:  GENE EXPRESSION ANALYSIS BY MICROARRAY
;  FILE REFERENCE: Aeomica-X-1
;  CURRENT APPLICATION NUMBER: US/09/864,761
;  CURRENT FILING DATE:  2001-05-23
;  PRIOR APPLICATION NUMBER: US 60/180,312
;  PRIOR FILING DATE: 2000-02-04
;  PRIOR APPLICATION NUMBER: US 60/207,456
;  PRIOR FILING DATE: 2000-05-26
;  PRIOR APPLICATION NUMBER: US 09/632,366
;  PRIOR FILING DATE: 2000-08-03
;  PRIOR APPLICATION NUMBER: GB 24263.6
;  PRIOR FILING DATE: 2000-10-04
;  PRIOR APPLICATION NUMBER: US 60/236,359
;  PRIOR FILING DATE: 2000-09-27
;  PRIOR APPLICATION NUMBER: PCT/US01/00666
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00667
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00664
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00669
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00665
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00668
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00663
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00662
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00661
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00670
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: US 60/234,687
;  PRIOR FILING DATE: 2000-09-21
;  PRIOR APPLICATION NUMBER: US 09/608,408
;  PRIOR FILING DATE: 2000-06-30
;  PRIOR APPLICATION NUMBER: US 09/774,203
;  PRIOR FILING DATE: 2001-01-29
;  NUMBER OF SEQ ID NOS: 49117
;  SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 17437
;   LENGTH: 276
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: MAP TO AC007377.3
;   OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 0.82
;   OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 1.1
;   OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 0.99
;   OTHER INFORMATION: EXPRESSED IN HBL100, SIGNAL = 1.1
;   OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 2.2
;   OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 1.1
;   OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 0.8
;   OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 1.2
;   OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 0.87
;   OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 0.9
;   OTHER INFORMATION: EST_HUMAN HIT: T19754.1, EVALUE 4.00e-67
;   OTHER INFORMATION: SWISSPROT HIT: Q01728, EVALUE 1.00e-43
;   OTHER INFORMATION: NT HIT: X91963.1, EVALUE 0.00e+00
US-09-864-761-17437

  Query Match             6.7%;  Score 186.2;  DB 10;  Length 276;
  Best Local Similarity   80.4%;  Pred. No. 6.7e-45;
  Matches  218;  Conservative    0;  Mismatches   53;  Indels    0;  Gaps    0;

Qy   2119 GATGAGGATGAGGATGAATCCGGGGAGGAGAGGCTGCCCTCCTGCTTTGACTACGTCATG 2178
          ||||| || || |||||||  ||||| |||| |||||||||||| || || ||||| |||
Db       6 GATGATGACGACGATGAATGTGGGGAAGAGAAGCTGCCCTCCTGTTTCGATTACGTGATG 65

Qy   2179 CACTTCCTGACTGTCTTCTGGAAGGTGCTGTTTGCCTGTGTGCCCCCCACAGAGTACTGC 2238
          ||||| |||||||| |||||||||| ||||||||||  || ||||| || || |||||
Db      66 CACTTTCTGACTGTGTTCTGGAAGGTCCTGTTTGCCTTCGTCCCCCCTACTGAATACTGG 125

Qy   2239 CACGGCTGGGCCTGCTTCGCCGTCTCCATCCTCATCATTGGCATGCTCACCGCCATCATT 2298
           | |||||||| || |||   |||||||||||||| |||||| | || || ||  |||||
Db    126 AATGGCTGGGCGTGTTTCATTGTCTCCATCCTCATGATTGGCCTACTGACAGCTTTCATT 185
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Qy   2299 GGGGACCTGGCCTCGCACTTCGGCTGCACCATTGGTCTCAAAGATTCAGTCACAGCTGTT 2358
          || |||||||| || ||||| |||||||||||||| || |||||||| || || || ||
Db    186 GGAGACCTGGCTTCCCACTTTGGCTGCACCATTGGCCTGAAAGATTCTGTGACTGCAGTC 245

Qy   2359 GTTTTCGTGGCATTTGGCACCTCTGTCCCAG 2389
          || ||||| ||| |||| || || || ||||
Db    246 GTGTTCGTCGCACTTGGAACATCAGTGCCAG 276


RESULT 11
US-09-864-761-102
; Sequence 102, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
;  APPLICANT: Penn, Sharron G.
;  APPLICANT:  Rank, David R.
;  APPLICANT:  Hanzel, David K.
;  APPLICANT:  Chen, Wensheng
;  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
;  TITLE OF INVENTION:  GENE EXPRESSION ANALYSIS BY MICROARRAY
;  FILE REFERENCE: Aeomica-X-1
;  CURRENT APPLICATION NUMBER: US/09/864,761
;  CURRENT FILING DATE:  2001-05-23
;  PRIOR APPLICATION NUMBER: US 60/180,312
;  PRIOR FILING DATE: 2000-02-04
;  PRIOR APPLICATION NUMBER: US 60/207,456
;  PRIOR FILING DATE: 2000-05-26
;  PRIOR APPLICATION NUMBER: US 09/632,366
;  PRIOR FILING DATE: 2000-08-03
;  PRIOR APPLICATION NUMBER: GB 24263.6
;  PRIOR FILING DATE: 2000-10-04
;  PRIOR APPLICATION NUMBER: US 60/236,359
;  PRIOR FILING DATE: 2000-09-27
;  PRIOR APPLICATION NUMBER: PCT/US01/00666
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00667
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00664
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00669
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00665
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00668
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00663
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00662
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00661
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00670
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: US 60/234,687
;  PRIOR FILING DATE: 2000-09-21
;  PRIOR APPLICATION NUMBER: US 09/608,408
;  PRIOR FILING DATE: 2000-06-30
;  PRIOR APPLICATION NUMBER: US 09/774,203
;  PRIOR FILING DATE: 2001-01-29
;  NUMBER OF SEQ ID NOS: 49117
;  SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 102
;   LENGTH: 459
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: MAP TO AC007281.3
;   OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 0.64
;   OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 0.68
;   OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 0.69
;   OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 6.1
;   OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 0.83
;   OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 1.3
;   OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.68
US-09-864-761-102

  Query Match             5.9%;  Score 164.2;  DB 10;  Length 459;
  Best Local Similarity   64.1%;  Pred. No. 2.9e-38;
  Matches  294;  Conservative    0;  Mismatches  138;  Indels   27;  Gaps    2;

Qy    555 TGTCTACGTGATCCCAGACGGAGAGACTCGCAAGATCAAGCATCTACGAGTCTTCTTCAT 614
          ||| || ||| | || ||||||||||| | ||||| |||||| | || ||||||||  |
Db      1 TGTTTATGTGGTGCCTGACGGAGAGACAAGGAAGATTAAGCATTTGCGTGTCTTCTTTGT 60

Qy    615 CACCGCTGCTTGGAGTATCTTTGCCTACATCTGGCTCTATATGATTCTGGCAGTCTTCTC 674
          || || || ||||| |||||||||||||| |||||| || || ||| || | ||| | ||
Db     61 GACAGCAGCCTGGAGCATCTTTGCCTACACCTGGCTTTACATTATTTTGTCTGTCATATC 120

Qy    675 CCCTGGTGTGGTCCAGGTTTGGGAAGGCCTCCTCACTCTCTTCTTCTTTCCAGTGTGTGT 734
          |||||||| ||  |||| |||||||  | || ||| |||||||||||||  | |||||
Db    121 TCCTGGTGTTGTGGAGGTCTGGGAAGGTTTGCTTACTTTCTTCTTCTTTCCCATCTGTGT 180

Qy    735 CCTTCTGGCCTGGGTGGCAGATAAACGACTGCTCTTCTACAAATACATGCACAAAAAGTA 794
            | | || ||||| || ||||   |||| || || ||||| ||  |  |||| | |||
Db    181 TGTGTTCGCTTGGGTAGCGGATAGGAGACTTCTGTTTTACAAGTATGTCTACAAGAGGTA 240

Qy    795 CCGCACAGACAAACACCGAGGAATTATCATAGAGACAGAGGGTGACCACCC--------- 845
          ||  | | ||| ||  | || || || || ||    || || |||   ||
Db    241 TCGAGCTGGCAAGCAGAGGGGGATGATTATTGAACATGAAGGAGACAGGCCATCTTCTAA 300

Qy    846 TAAGGGCATTGAGATGGATGGGAAAATGATGAATTCCCATTTTCTAGATGGGAACCTGGT 905
          |  |  ||||| ||||| |||||| || | ||||| ||| ||  | ||          |
Db    301 GACTGAAATTGAAATGGACGGGAAAGTGGTCAATTCTCATGTTGAAAATTTCTTAGATGG 360

Qy    906 GCCCCTGGAAGGGAAG-----------------GAAGTGGATGAGTCCCGCAGAGAGAT 947
            | ||||    | ||                 || |  || ||  |  |  |||| ||
Db    361 TGCTCTGGTTCTGGAGGTGGATGAGAGGGACCAAGATGATGAAGAAGCTAGGCGAGAAAT 420

Qy    948 GATCCGGATTCTCAAGGATCTGAAGCAAAAACACCCAGA 986
          |    ||||||| ||||| || ||||| || || |||||
Db    421 GGCTAGGATTCTGAAGGAACTTAAGCAGAAGCATCCAGA 459


RESULT 12
US-09-864-761-17938/c
; Sequence 17938, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
;  APPLICANT: Penn, Sharron G.
;  APPLICANT:  Rank, David R.
;  APPLICANT:  Hanzel, David K.
;  APPLICANT:  Chen, Wensheng
;  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FO
;  TITLE OF INVENTION:  GENE EXPRESSION ANALYSIS BY MICROARRAY
;  FILE REFERENCE: Aeomica-X-1
;  CURRENT APPLICATION NUMBER: US/09/864,761
;  CURRENT FILING DATE:  2001-05-23
;  PRIOR APPLICATION NUMBER: US 60/180,312
;  PRIOR FILING DATE: 2000-02-04
;  PRIOR APPLICATION NUMBER: US 60/207,456
;  PRIOR FILING DATE: 2000-05-26
;  PRIOR APPLICATION NUMBER: US 09/632,366
;  PRIOR FILING DATE: 2000-08-03
;  PRIOR APPLICATION NUMBER: GB 24263.6
;  PRIOR FILING DATE: 2000-10-04
;  PRIOR APPLICATION NUMBER: US 60/236,359
;  PRIOR FILING DATE: 2000-09-27
;  PRIOR APPLICATION NUMBER: PCT/US01/00666
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00667
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00664
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00669
;  PRIOR FILING DATE: 2001-01-30
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;  PRIOR APPLICATION NUMBER: PCT/US01/00665
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00668
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00663
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00662
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00661
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00670
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: US 60/234,687
;  PRIOR FILING DATE: 2000-09-21
;  PRIOR APPLICATION NUMBER: US 09/608,408
;  PRIOR FILING DATE: 2000-06-30
;  PRIOR APPLICATION NUMBER: US 09/774,203
;  PRIOR FILING DATE: 2001-01-29
;  NUMBER OF SEQ ID NOS: 49117
;  SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 17938
   LENGTH: 151
   TYPE: DNA
,  ORGANISM: Homo sapiens
;  FEATURE:
;  OTHER INFORMATION: MAP TO AC007254.2
;  OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 1.5
;  OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 1.2
;  OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 1.3
;  OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 0.97
;  OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 4.8
;  OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 2.4
;  OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 0.88
;  OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 5.6
;  OTHER INFORMATION: EXPRESSED IN HBL100, SIGNAL = 1.2
;  OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 0.96
;  OTHER INFORMATION: EST_HUMAN HIT: T19755.1, EVALUE 5.00e-65
;  OTHER INFORMATION: SWISSPROT HIT: Q01728, EVALUE 1.00e-14
US-09-864-761-17938

  Query Match             3.4%;  Score 95;  DB 10;  Length 151;
  Best Local Similarity   76.8%;  Pred. No. 3.2e-18;
  Matches  116;  Conservative    0;  Mismatches   35;  Indels    0;  Gaps    0;

Qy    2366 TGGCATTTGGCACCTCTGTCCCAGATACGTTTGCCAGCAAAGCTGCTGCCCTCCAGGATG 2425
           || | ||     | ||     |||| || ||||||||||||  || |||  ||||||
Db     151 TGACTTTCTCTTCTTCCTCTGCAGACACATTTGCCAGCAAAGTGGCAGCCACCCAGGACC 92

Qy    2426 TATATGCAGACGCCTCCATTGGCAACGTGACGGGCAGCAACGCCGTCAATGTCTTCCTGG 2485
           ||||||||||||||||| || ||||| |||||||||||||| || ||||||||||||
 b      91 AGTATGCAGACGCCTCCATAGGTAACGTCACGGGCAGCAACGCGGTGAATGTCTTCCTGG 32

Qy    2486 GCATCGGCCTGGCCTGGTCCGTGGCCGCCAT 2516
           | |||||  |||||||||| | || |||||
Db      31 GAATCGGTGTGGCCTGGTCCATCGCTGCCAT 1


RESULT 13
US-09-938-842A-2591
; Sequence 2591, Application US/09938842A
; Patent No. US20020160378A1
; GENERAL INFORMATION:
;  APPLICANT: Harper, Jeff
;  APPLICANT:  Kreps, Joel
;  APPLICANT:  Wang, Xun
;  APPLICANT:  Zhu, Tong
;  TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING
;  TITLE OF INVENTION:  SAME, AND METHODS OF USE
;  FILE REFERENCE: SCRIP1300-3
;  CURRENT APPLICATION NUMBER: US/09/938,842A
;  CURRENT FILING DATE:  2001-08-24
;  PRIOR APPLICATION NUMBER: US 60/227,866
;  PRIOR FILING DATE: 2000-08-24
;  PRIOR APPLICATION NUMBER: US 60/264,647
;  PRIOR FILING DATE: 2001-01-16
;  PRIOR APPLICATION NUMBER: US 60/300,111
;  PRIOR FILING DATE: 2001-06-22
;  NUMBER OF SEQ ID NOS: 5379
; SEQ ID NO 2591
;   LENGTH: 1617
;   TYPE: DNA
;   ORGANISM: Arabidopsis thaliana
US-09-938-842A-2591

  Query Match             2.8%;  Score 76.6;  DB 9;  Length 1617;
  Best Local Similarity   46.8%;  Pred. No. 4.6e-12;
  Matches  275;  Conservative    0;  Mismatches  309;  Indels    3;  Gaps    1;

Qy    2174 TCATGCACTTCCTGACTGTCTTCTGGAAGGTGCTGTTTGCCTGTGTGCCCCCCACAGAGT 2233
           ||  ||| || ||    | |   |||||  |||| ||||| | ||||||||||     |
Db    1031 TCTGGCATTTACTCCTCGCCCCTTGGAAACTGCTTTTTGCATTTGTGCCCCCCTGCAACA 1090

Qy    2234 ACTGCCACGGCTGGGCCTGCTTCGCCGTCTCCATCCTCATCATTGGCATGCTCACCGCCA 2293
                |||||  |||  |   |||  |  |||  |||||  ||||  |     |  ||
Db    1091 TTGCTCACGGTTGGATCGCTTTCATCTGCTCTCTCCTCTTCATCAGTGGAGTAGCCTTTG 1150

Qy    2294 TCATTGGGGACCTGGCCTCGCACTTCGGCTGCACCATTGGTCTCAAAGATTCAGTCACAG 2353
           |  |         |  |     |   |  ||||   || |||  | ||     |  || | ||
Db    1151 TTGTCACAAGATTTACTGACCTTATAAGCTGTGTCACTGGAATAAACCCATATGTGATAG 1210

Qy    2354 CTGTTGTTTTCGTGGCATTTGGCACCTCTGTCCCAGATACGTTTGCCAGCAAAGCTGCTG 2413
           |  |         | |||   ||| || ||    |||||     | || || |||   ||||
Db    1211 CATTCACAGCACTCGCAAGTGGAACTTCATGGCCAGACTTAGTAGCAAGTAAAATCGCTG 1270

Qy    2414 CCCTCCAGGATGTATATGCAGACGCCTCCATTGGCAACGTGACGGGCAGCAACGCCGTCA 2473
           |    |   |  ||   |||||  |  | ||||  ||| | ||  |||| ||| | || |
Db    1271 CAGAGCGACAACTAACCGCAGATTCAGCTATTGCAAACATCACCTGCAGTAACTCGGTGA 1330

Qy    2474 ATGTCTTCCTGGGCATCGGCCTGGCCTGGTCCGTGGCCGCCATCT---ACTGGGCTCTGC 2530
           |  |||   |||| || ||  |  | |||    |   | |  |||   |||    |
Db    1331 ACATCTATGTGGGGATTGGAGTTCCGTGGCTGATAAACACAGTCTACAACTACTTTGCAT 1390

Qy    2531 AGGGACAGGAGTTCCACGTGTCGGCCGGCACACTGGCCTTCTCCGTCACCCTCTTCACCA 2590
           |  || ||   ||  || |       ||  | |        ||        ||  |   |
Db    1391 ACAGAGAGCCTTTATACATAGAAAACGCTAAAGGATTAAGCTTTTCGCTTCTGATATTCT 1450

Qy    2591 TCTTTGCATTTGTCTGCATCAGCGTGCTCTTGTACCGAAGGCGGCCGCACCTGGGAGGGG 2650
           |     |||  ||  |    | |||| |  |       ||  ||  |    | ||||  |
Db    1451 TTGCGACATCAGTGGGATGTATCGTGGTGCTTGTGTTGAGAAGGTTGATTATAGGAGCTG 1510

Qy    2651 AGCTTGGTGGCCCCCGTGGCTGCAAGCTCGCCACAACATGGCTCTTTGTGAGCCTGTGGC 2710
           |||||| || ||  |    ||          ||  |       ||  |||  || |||
Db    1511 AGCTTGGAGGTCCAAGGCTATGGGCTTGGCTTACTTCTGCCTATTTCATGATGCTTTGGG 1570

Qy    2711 TCCTCTACATACTCTTTGCCACACTAGAGGCCTATTGCTACATCAAG 2757
           || ||| | |  |  || |  |  |  | |  |   ||  |||  ||
Db    1571 TCGTCTTCGTTGTTCTTTCTTCTTTGAAAGTTTCAGGCGTCATATAG 1617


RESULT 14
US-09-864-761-20736
; Sequence 20736, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
;  APPLICANT: Penn, Sharron G.
;  APPLICANT:  Rank, David R.
;  APPLICANT:  Hanzel, David K.
;  APPLICANT:  Chen, Wensheng
;  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FO
;  TITLE OF INVENTION:  GENE EXPRESSION ANALYSIS BY MICROARRAY
;  FILE REFERENCE: Aeomica-X-1
;  CURRENT APPLICATION NUMBER: US/09/864,761
;  CURRENT FILING DATE:  2001-05-23
;  PRIOR APPLICATION NUMBER: US 60/180,312
;  PRIOR FILING DATE: 2000-02-04
;  PRIOR APPLICATION NUMBER: US 60/207,456
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;  PRIOR FILING DATE: 2000-05-26
;  PRIOR APPLICATION NUMBER: US 09/632,366
;  PRIOR FILING DATE: 2000-08-03
;  PRIOR APPLICATION NUMBER: GB 24263.6
;  PRIOR FILING DATE: 2000-10-04
;  PRIOR APPLICATION NUMBER: US 60/236,359
;  PRIOR FILING DATE: 2000-09-27
;  PRIOR APPLICATION NUMBER: PCT/US01/00666
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00667
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00664
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00669
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00665
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00668
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00663
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00662
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00661
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00670
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: US 60/234,687
;  PRIOR FILING DATE: 2000-09-21
;  PRIOR APPLICATION NUMBER: US 09/608,408
;  PRIOR FILING DATE: 2000-06-30
;  PRIOR APPLICATION NUMBER: US 09/774,203
;  PRIOR FILING DATE: 2001-01-29
;  NUMBER OF SEQ ID NOS: 49117
;  SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 20736
;   LENGTH: 128
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: MAP TO AC007377.3
;   OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 0.68
;   OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 0.8
;   OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 0.86
;   OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 0.57
;   OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 0.92
;   OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.69
;   OTHER INFORMATION: NT HIT: X91216.1, EVALUE 3.00e-66
;   OTHER INFORMATION: SWISSPROT HIT: P32418, EVALUE 2.00e-18
;   OTHER INFORMATION: EST_HUMAN HIT: T19754.1, EVALUE 5.00e-06
US-09-864-761-20736

  Query Match             2.2%;  Score 60;  DB 10;  Length 128;
  Best Local Similarity   72.2%;  Pred. No. 5.7e-08;
  Matches   78;  Conservative    0;  Mismatches   30;  Indels    0;  Gaps    0;

Qy   1906 CTGACTATGGAAGAAGAGGAGGCCAAGAGGATAGCAGAGATGGGAAAGCCAGTATTGGGT 1965
           ||||| |   |||| || ||||  | | | || ||||| |||||    ||  |  ||||
Db     21 CTGACCAGCAAAGAGGAAGAGGAGAGGCGCATTGCAGAAATGGGGCGCCCCATCCTGGGA 80

Qy   1966 GAACACCCCAAACTAGAAGTCATCATTGAAGAGTCCTATGAGTTCAAG 2013
           || ||| ||||  | ||||| |||||||||| |||||||| ||||||
Db     81 GAGCACACCAAGTTGGAAGTGATCATTGAAGAATCCTATGAATTCAAG 128


RESULT 15
US-09-864-761-3975
; Sequence 3975, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
;  APPLICANT: Penn, Sharron G.
;  APPLICANT:  Rank, David R.
;  APPLICANT:  Hanzel, David K.
;  APPLICANT:  Chen, Wensheng
;  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FO
;  TITLE OF INVENTION:  GENE EXPRESSION ANALYSIS BY MICROARRAY
;  FILE REFERENCE: Aeomica-X-1
;  CURRENT APPLICATION NUMBER: US/09/864,761
;  CURRENT FILING DATE:  2001-05-23
;  PRIOR APPLICATION NUMBER: US 60/180,312
;  PRIOR FILING DATE: 2000-02-04
;  PRIOR APPLICATION NUMBER: US 60/207,456
;  PRIOR FILING DATE: 2000-05-26
;  PRIOR APPLICATION NUMBER: US 09/632,366
;  PRIOR FILING DATE: 2000-08-03
;  PRIOR APPLICATION NUMBER: GB 24263.6
;  PRIOR FILING DATE: 2000-10-04
;  PRIOR APPLICATION NUMBER: US 60/236,359
;  PRIOR FILING DATE: 2000-09-27
;  PRIOR APPLICATION NUMBER: PCT/US01/00666
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00667
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00664
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00669
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00665
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00668
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00663
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00662
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00661
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: PCT/US01/00670
;  PRIOR FILING DATE: 2001-01-30
;  PRIOR APPLICATION NUMBER: US 60/234,687
;  PRIOR FILING DATE: 2000-09-21
;  PRIOR APPLICATION NUMBER: US 09/608,408
;  PRIOR FILING DATE: 2000-06-30
;  PRIOR APPLICATION NUMBER: US 09/774,203
;  PRIOR FILING DATE: 2001-01-29
;  NUMBER OF SEQ ID NOS: 49117
;  SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 3975
;   LENGTH: 467
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: MAP TO AC007377.3
;   OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 0.68
;   OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 0.8
;   OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 0.86
;   OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 0.57
;   OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 0.92
;   OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.69
US-09-864-761-3975

  Query Match             2.2%;  Score 60;  DB 10;  Length 467;
  Best Local Similarity   72.2%;  Pred. No. 1.5e-07;
  Matches   78;  Conservative    0;  Mismatches   30;  Indels    0;  Gaps    0;

Qy   1906 CTGACTATGGAAGAAGAGGAGGCCAAGAGGATAGCAGAGATGGGAAAGCCAGTATTGGGT 1965
           ||||| |   |||| || ||||  | | | || ||||| |||||    ||  |  ||||
Db    286 CTGACCAGCAAAGAGGAAGAGGAGAGGCGCATTGCAGAAATGGGGCGCCCCATCCTGGGA 345

Qy   1966 GAACACCCCAAACTAGAAGTCATCATTGAAGAGTCCTATGAGTTCAAG 2013
           || ||| ||||  | ||||| |||||||||| |||||||| ||||||
Db    346 GAGCACACCAAGTTGGAAGTGATCATTGAAGAATCCTATGAATTCAAG 393


Search completed: November 30, 2002, 12:26:50
Job time : 128 secs
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